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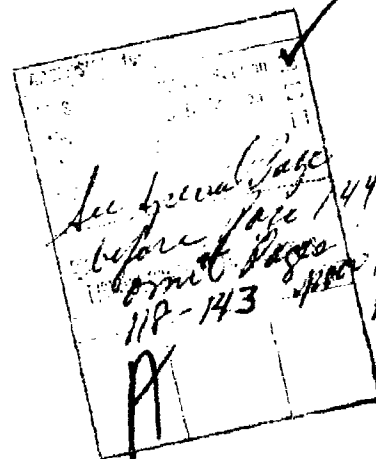
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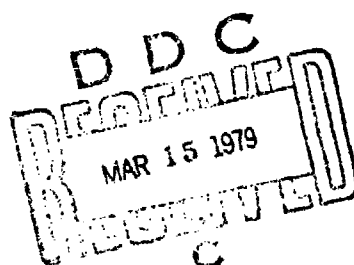
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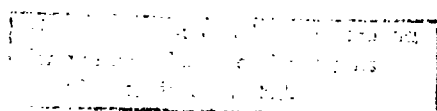


AN ANALYSIS OF THE IMPACT
OF THE NEW OER SYSTEM ON THE
OFFICER CORPS USING A LEWIN-BASED MODEL

THESIS

GSM/SM/76D-27

Ralph A. Blakelock
Capt USAF



GSM/GM/76D-27

AN ANALYSIS OF THE IMPACT
OF THE NEW OER SYSTEM ON THE
OFFICER CORPS USING A LEWIN-BASED MODEL

THESIS

Presented to the Faculty of the School of Engineering
of the Air Force Institute of Technology
Air University
in Partial Fulfillment of the
Requirements for the Degree of
Master of Science

by

Ralph A. Blakelock, B.S.
Capt USAF

Graduate Systems Management
December 1976

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Preface

My goal in this thesis was to conduct a preliminary investigation of the impact of the new OER upon the officer corps. My interest in this subject was originally generated in 1974 as a member of the Foreign Technology Division Junior Officer Council. At that time, the council drafted a position paper which recommended several changes to the proposed new OER. For the past two years I have observed officer reaction to the system.

My major concern in this thesis was to make an unbiased, qualitative examination of the system and its effect on the officer corps. I had no interest in judging the system "good" or "bad", but will let the reader form his own judgments based on the evidence presented in this research.

I wish to express my gratitude to Major Edward J. Dunne, my thesis advisor for his thoughtful guidance and patience in this effort. I also wish to acknowledge my indebtedness to Miss Shirley Stuck for her assistance in the preparation of this report.

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Certainly one of the most important and controversial issues among Air Force officers is the new Officer Evaluation System (OER). The new system was adopted in 1974 because of widespread dissatisfaction with the previous evaluation system. Yet, nearly two years later, many officers still regard this system with trepidation and anxiety.

This thesis investigated several aspects of the new OER system. It reviewed some general concepts of performance appraisal and then traced the development of the new OER, including the philosophy upon which it is based and the objectives which it was designed to accomplish.

The major focus of the thesis, however, was devoted to assessing the impact of this new system upon the well being and morale of the officer corps. This was accomplished by adopting a conceptual model based on the works of the psychologist Kurt Lewin. Lewin theorized that the effects of change in an organization were the result of competing forces which affected not only the members of that organization, but the entire fabric of the organization as well. This "force field" model was used in the research for two purposes.

(1) It provided a framework for assessing the ultimate impact of the new OER on the well being and morale of the officer corps.

(2) It formed the basis for a survey questionnaire which investigated the effects generated by the new OER.

From this study, it was determined that the new OER has had an unfavorable influence on the officer corps, but has not as yet had a perceivable impact on the functioning and morale of the officer corps.

AN ANALYSIS OF THE IMPACT OF THE NEW OER SYSTEM
ON THE OFFICER CORPS USING A LEWIN-BASED MODEL

I. INTRODUCTION

Ever since Man has been organized into formal groups to achieve common purposes, he has rendered decisions to maintain or increase his group's effectiveness. In other words, he manages various resources and attempts to maximize their usefulness. However, before other resources can be effectively utilized, a good working relationship of the most important resource, people, must be established. Because of this fact the manager is confronted with many personnel decisions which vitally affect his organization - who to hire, who to fire, who to transfer, and who to promote. A solid basis for making these choices is needed. Although circumstances and situations are probably not the same for any two managers, it can be safely assumed that personnel evaluation or appraisal plays a major role in these decisions.

This is true whether it is a football coach deciding on his "starting line-up" or a business executive deciding who is to be the shop foreman or a wing commander deciding who is to be squadron commander. In each case the choices will be strongly influenced by judgments of one individual about another.

The problem of the manager comes into clearer focus when attempting to determine how to evaluate personnel. Undoubtedly,

in the beginning, survival of the strongest in a purely physical sense was the sole determining factor. But as civilization progressed and became more complex, the need for improved methods of determining employee performance and ability magnified. Yet, in spite of the best efforts of Man, a perfect evaluation system is probably not a realizable goal. So, today, just as before, managers are faced with the continuing challenge of determining better methods to evaluate personnel.

Certainly this is realized by the leaders of the United States Air Force (USAF). In September 1975, former Secretary of the Air Force John L. McLucas declared,

We have a continuing requirement for ever better managers and must reward these people with responsible positions and higher rank (Ref 17:3).

In order to accomplish these goals, the USAF seeks to recognize those individuals who possess exceptional ability. The main element in this process is the Officer Evaluation System. By providing an evaluation of each officer's competence, dedication, and potential, this system attempts not only to identify individuals with the above qualities, but also to create a climate among all officers that emphasizes managerial excellence.

However, in the 29 years that the USAF has been in existence, three officer evaluation systems have been adopted and then abandoned as unworkable. Now a fourth system has been adopted. The ultimate fate of this system is at present unknown. But whether the present system goes the way of its predecessors, or whether it endures, will

in large measure be determined by those who are directly affected by it - the USAF officer corps. This thesis therefore, is concerned with the effects, if any, this change in personnel policy may have generated within the officer corps.

Background

A more complete discussion of the history of both civilian and Air Force performance appraisal systems is reserved for Chapter 3. However, it may be helpful at this point to briefly review the situation which led to the demise of the Air Force officer evaluation system which was in existence immediately prior to the present system. According to the Air Force Military Personnel Center (AFMPC), the overriding weakness was rampant inflation in the evaluations. This phenomenon eroded the accuracy of the report to the point where distinction between officer performances was extremely difficult. As a result, its usefulness in personnel actions was limited (Ref 22:1). Lt General John W. Roberts, then Deputy Chief of Staff for Personnel, Headquarters USAF (AF/DP), explained,

Even though many of us dislike rating others and being rated ourselves, we have to recognize that evaluations are necessary to document achievements, assist in assigning the right officers to the right jobs, and provide a written picture of performance. Because of its importance to the Air Force and the officer, the new system was developed to restore the OER's effectiveness in selecting the best officers for increased rank and responsibility (Ref 8:54).

The need for change to the Officer Effectiveness Report (OER) system was echoed by others. In one survey conducted by the Air Force Human Resources Laboratory (AFHRL), 71 percent of the officers questioned considered the system then in effect unacceptable (Ref 22:1).

Overview of Present Situation

It has now been almost two years since the new system was first introduced. Although most officers agreed that the old OER system was ineffective, the merits of the new system continue to be debated by many officers.

Certainly the most controversial provision of the system is the controlled distribution of ratings on Evaluation of Potential (Section V of the form. See Appendix A.) This has been compared by some to a zero-sum type of system, where one individual's good fortune necessitates another's misfortune. Looking at the present OER system, each time an individual is rated in either of the top two blocks, this means that another individual will have to be rated in Block 3 or lower.

Consequently, this has caused less than enthusiastic acceptance among some officers. In informal discussions with other students and faculty at the Air Force Institute of Technology (AFIT) as well as officers throughout the Air Force, the writer has received varying opinions regarding the effects of the system. Some of the more poignant are presented below:

1. My O-5 boss got a three and quit working. He comes late, leaves early, and doesn't work while he's here. -- A captain working in supply
2. It's getting so the guys are keeping everything to themselves and that's a hell of a way to run a ship. -- A major on a planning staff
3. It's kind of eery. The half that got threes stopped pushing, while the other half kept pushing to get 1's and 2's next time. -- A civilian working in a headquarters
4. I agonized long and hard trying not to violate the quota too bad in rating my majors, but then Colonel X comes to the advisory board with all ones. Bob, one of my best guys whom I almost gave a one to, wound up with a three. -- A colonel commenting on an advisory board
5. I'm concerned about it from a rater's standpoint. I did my best to fairly and accurately evaluate Jim's performance. I certainly will be "turned off on the system" if my evaluation is overruled. -- A captain instructor pilot
6. The new officer evaluation system is working fine.
-- An official within the Air Force personnel community

Are these isolated comments or are they indicative of widespread conflict in views and perceptions by Air Force personnel? How does the officer corps view the OER system? Is the system working as intended?

Previous Research

Since the new system has been in existence for less than two years, little data is presently available concerning its effect on officer perceptions. In 1975, an Air Command and Staff College study sampled officer opinions at that school, the Air War College, and Squadron Officer School. One of the conclusions of the study was that many officers felt the system was unfair (Ref 5:106).

Other areas of concern included questions with regard to the zero-sum approach used in evaluations, possible negative effects on peer group cooperation, and a general decline in productivity (Ref 5:104-107). Another study, accomplished by Kenneth Carey at the Air War College also raised questions regarding the new system's psychological impact on the well-being and morale of the officer corps (Ref 4:63).

In view of these preliminary findings, this thesis explores the new OER system and its impact on the officer corps. It provides an analytical measure of officer perceptions about the OER system and then derives conclusions from the data collected.

The Lewin Conceptual Model

As a part of the research effort, a conceptual model is established by which to assess the impact of the new OER system on the officer corps and several job-related Air Force "quality of life" issues. This framework was adapted from the works of the prominent psychologist Kurt Lewin. Although more thoroughly explained in Chapter 4, Figure 1 shows the basic construct of the model.

The Lewin Theory states that certain forces are present in any organizational environment. These forces, termed restraining forces (those resisting change) and driving forces (those promoting change) act in much the same fashion that electromagnetic or gravitational forces act in a physical environment producing a "force field." Eventually, these forces stabilize and a state of equilibrium is established. Lewin termed this equilibrium as the organizational level of functioning. This is depicted in Phase A of the figure (Ref 12:26).

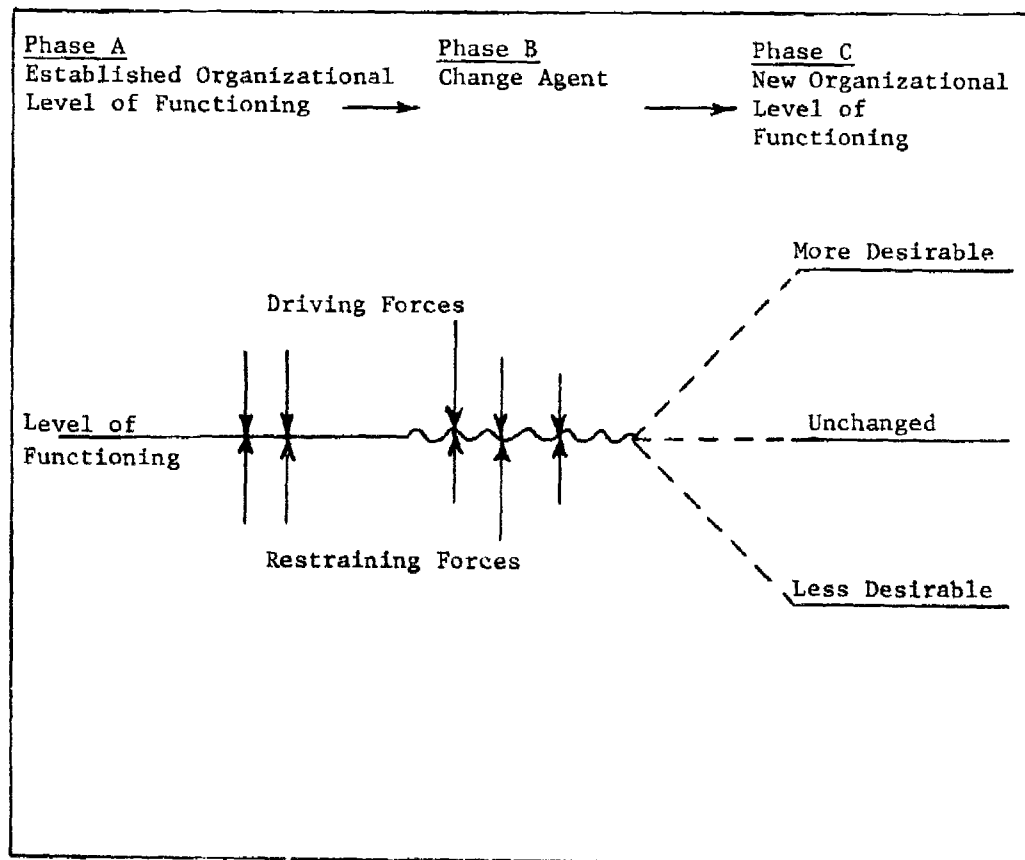


Fig. 1. Schematic of Field Theory

Each time that some change occurs which affects the organization, be it a change in policies, procedures, or some other cultural or social phenomenon, the organizational forces are altered. Some may become stronger, some weaker. This is depicted in Phase B.

Finally, some resolution to this unstable situation occurs. If the driving forces are strong enough, the level of functioning of the organization will ultimately be affected. In this instance, equilibrium will be re-established at some new level of functioning. If the restraining forces prevail, then the level of functioning will return to its previously established level. These possibilities are shown in Phase C of the figure.

Adapting this model to the subject addressed in this thesis, two assumptions are made.

- (1) The Air Force officer corps is considered equivalent to an organization in the Lewin model. As such, it is subject to various organizational forces which influence its level of functioning.
- (2) The new OER system is conceptualized as a change agent which impacts the organization (officer corps).

The preliminary chapters of the thesis will present the background information and logic used to verify these assumptions. Once these assumptions are verified, then the concluding chapter will use the Lewin model to determine the impact of the OER system on the officer corps and its level of functioning.

Statement of the Problem

The USAF officer corps is faced by a significant change in its officer evaluation system. This situation can be explained in terms

of a Lewin model. However, no empirical measurement tool now exists which utilizes the Lewin construct. This thesis seeks to develop the Lewin model and investigate and identify any effects which the new OER system may have had on the officer corps.

Objectives

The objectives of this thesis are:

- (1) Determine the feasibility of constructing a physical representation of the Lewin "force field" model to sample officer perceptions about the new OER system.
- (2) Use the Lewin model as a basis for determining what effects the new OER system has had on the officer corps and whether this influence has changed the level of functioning of the corps.

Limitations

Time constraints were a major factor in this thesis. In addition a new type of measurement device was being tested. Considering these two factors, the sample population was restricted to AFIT School of Engineering Students. Therefore any comparison of data from other surveys or conclusions drawn from the data will be carefully checked to insure similarity of sample groups.

II. METHODOLOGY

The following sequence of steps was followed to achieve the desired objectives.

- (1) Literature on relevant subjects was reviewed
- (2) A method for data collection was determined
- (3) Form of the questionnaire and variables to be evaluated were determined
- (4) The sample population was determined
- (5) Data was collected, the Lewin construct evaluated, and data was analyzed
- (6) Conclusions were derived from the analysis and recommendations developed

Familiarization With Relevant Issues

Since the focus of this research concerned recent changes in the OER system and its effects upon the officer corps, several subjects were investigated. These included the history of the new and old OER systems, general characteristics of performance appraisal, and an analysis of the role of change in an organizational setting.

Three principal sources were utilized to gather the necessary background information. The Wright State University library was very useful in collecting information on organizational theory and specifically, the Lewin Field Theory which provided the basis for the model used in the thesis.

The AFIT library provided the means to obtain three vital studies which concentrated on the history of both civilian and USAF performance appraisal systems. These studies were the Carey and Carr studies referenced earlier and another Air Command and Staff College study accomplished by Robin S. Purdie in 1973.

The final source was the AFIT Personnel Office. Here the applicable directive (AFR 36-10) and various policy letters pertaining to the OER system were reviewed to complement the information already collected.

Steps in the Process. The initial effort was directed at becoming familiar with some general characteristics of performance appraisal in order to gain a thorough understanding of the similarities and differences between civilian and USAF systems. In particular, attention was focused on AFR 36-10, Officer Evaluations, to determine the purposes of the OER system, the philosophy underlying it, and the actual mechanics of the system. From this review, several common appraisal problems were highlighted. The final step was a review of literature on the topic of organizational dynamics. It was from this review that the theory of Kurt Lewin emerged as an appropriate means to explain the effects that the new OER system may have had on the officer corps. It was from this study of Lewin's Field Theory, that the conceptual model presented in Chapter 1 was derived. The use of the "force field" as the basis for a survey instrument was also explored. A more complete explanation of the Lewin theory and its applicability to the present situation in the USAF is presented in Chapters 4 and 5.

Method to Collect Data

One of the first decisions to be made concerning the research was the form of data collection. Since the study was concerned with collecting previously unknown officer perceptions, and also testing

the feasibility of the Lewin approach, two methods available were the interview and the questionnaire. After consideration of each option, the questionnaire was selected as the best means for acquiring the desired data. This decision was based on the following considerations:

- (1) A larger population could be sampled in the given time period
- (2) It would be easier to implement and administer
- (3) Scoring techniques or measurement of responses could be standardized for analysis purposes

In addition, because one of the objectives was to test the utility of using the Lewin theory as a basis for describing the effects of the OER system, the questionnaire also had the advantage that it could be more easily constructed in a Lewin format. A complete explanation of questionnaire development is presented in Chapter 5.

Form of the Questionnaire and Variables to be Included

Following the decision to construct a questionnaire, the form of the questionnaire and the variables to be studied had to be defined. The objectives of the questionnaire were twofold. The first objective was to identify specific aspects or effects produced by the new OER system. The second objective was to determine if the new system had influenced officer opinion about job related "quality of life" issues.

To satisfy the first consideration, Lewin's Field Theory was employed as a mechanism to measure these effects. After a review and analysis of the literature on the subjects of organizational change and the impact of performance appraisals, four areas were selected for study. These were officer career planning, job and mission performance, fairness of the system, and Air Force personnel actions. In each of these areas, a Lewin "force field" was designed which

listed several possible effects of the new OER system. The responses to this part of the questionnaire were intended to be a measure of the forces described in Phase B in the Lewin model.

An excellent basis for the second consideration was provided by the Air Force Management Improvement Group Survey (AFMIG) which was originally administered in 1975. This survey, taken before most Air Force officers had been exposed to, or rated under, the new system, measured Air Force personnel perceptions of the "quality of life" in the Air Force. Although several aspects of Air Force life were addressed, four were of particular interest and germane to this research. These dealt with attitudes toward Air Force work and job satisfaction, leadership and supervision, equity and fair treatment and personal growth opportunities. By comparing the responses to these questions for similar sample populations, Phases A and C of the Lewin model were evaluated. The answers provided in the 1975 survey corresponded to Phase A; the answers provided in this survey corresponded to Phase C.

In summary, the questionnaire was designed to closely parallel the Lewin model discussed in Chapter 1. The 1975 AFMIG survey results were used as a previous measure of the officer corps functioning and morale, the "force field" questions were used to determine what forces or effects had been created by the new OER system, and the 1976 AFMIG results were used as a current measure of the officer corps functioning and morale. From analysis of these results, a concluding statement about the effects of the new OER system on the officer corps was possible. The entire questionnaire is located in Appendix B.

Sample Population Used in Study

In order to fulfill the requirements of the thesis within the allotted time, an appropriate sample population had to be selected. Three requirements were established. First, it had to be easily accessible to the researcher to allow a minimum data collection period. Second, the population had to have varied backgrounds (years experience, AFSC, rating). Third, the population had to be fairly representative of all Air Force officers who have career intentions. The reason for this requirement was to determine the effects of the OER system upon those who it would be most affected by it - those with career aspirations.

Taking into account these requirements it was decided that the student population of AFIT most closely fit the desired criteria. In addition, by limiting the sample to students entering the school in 1976, almost all of the population would have had recent exposure to the OER system, thereby making it more likely for perceptions to be better defined.

Data Analysis; Evaluation of Lewin Construct

Before the data collected in the survey was analyzed, the Lewin construct used in the "force field" section of the questionnaire was evaluated. This was accomplished via a three step process. Initially, a pre-test was distributed to graduate students in the Operations Research and Systems Management Programs. Comments and criticisms about the approach were encouraged. Subsequent to the pre-test, the writer interviewed fifteen members of the pre-test group to further

ascertain reaction and acceptance of the Lewin construct. Finally, appropriate revisions and refinements were made and the final questionnaire distributed. From the feedback received during each of these phases, a final conclusion regarding the "force field" approach was determined. Details of this evaluation are located in the initial section of Chapter 6.

All of the questionnaire responses were designed to be compatible with the library of programs available in the Statistical Package for the Social Sciences (SPSS) computer routines. Three categories of analysis were performed. The first was standard frequency analysis of all questions which included mean, standard deviation and variance. For this purpose, the FREQUENCIES program of the SPSS package was used (Ref 18).

The second category of analysis was multiple regression analysis using the responses to the "force field" questions as a predictor list for the response to the question "What is your opinion of the impact of the new OER system on the functioning and morale of the officer corps?" The REGRESSION program was utilized for this analysis (Ref 18).

The third category of analysis was the comparison of AFMIG responses for this survey with the responses for the original survey administered in 1975. The FREQUENCIES program provided means for these questions which were then compared to the earlier mean responses. This procedure provided a measure of the present officer corps level of functioning and allowed comparison to the previously determined level of functioning.

Conclusions and Recommendations

After the data was thoroughly analyzed, appropriate conclusions were derived. All significant findings of the study were highlighted, including the completion of the Lewin model to assess the impact of the new OER system on the level of functioning of the officer corps. In addition, possible future effects were explored and recommendations for future research were developed.

III. EVALUATION OF PERFORMANCE AND POTENTIAL

Although the focus of the thesis is not directed primarily at outlining the development of performance appraisal, it is necessary to understand the basis of such systems before examining them in detail. Two research papers which proved invaluable in gathering background material for this chapter were Carey's, The New OER: An Epitaph for '75, and Purdie's, A Preliminary Investigation of the Proposed USAF Officer Evaluation System. Both presented a comprehensive survey of literature on civilian and USAF systems, thereby reducing the necessity for a completely independent investigation by the writer. This chapter presents major points of these studies along with relevant issues raised by other writers on the subject.

Civilian Systems

Background. The genesis of modern performance appraisal systems probably originated in the late 1700's or early 1800's (Ref 4:5). In one of the earliest recorded systems, Robert Owen, the British reformer (1771-1858) developed a merit system for use in the factory. His "character book" signalled an effort on the part of management to formally differentiate between the performance of employees (Ref 4:5).

In the United States, the concepts of performance appraisal gained momentum after World War I. As the study of psychology and other behavioral sciences increased, greater emphasis was placed on determining the relationships between the employee and his work environment. Psychological tests were designed to enhance employee placement and satisfaction, and, thereby improve morale and productivity. A principle source of data for this initial effort was the Harvard Business

School Study (1927-1932) which was conducted among 20,000 employees of the Hawthorne Works of Western Electric.

It was not until after World War II, however, that the development of modern performance appraisal systems came into existence. In an era of increasingly complex managerial activity, companies finally recognized the need to attract and develop new executive talent. As a result, better systems of appraisal were necessary to identify individuals who possessed exceptional ability (Ref 4:6).

Before delving into the specifics of performance appraisal, however, it is necessary to establish a common understanding of what is meant by the term. According to Bellows,

Employee evaluation is a systematic, periodic evaluation of the total worth of an individual to the organization (Ref 3:370).

Bellows further defines the total worth as a combination of factors, of which some are quantitative (number of items produced, absences, etc.), and some qualitative (goodness of work, attitude, etc.).

From this base of reference, the objectives of a performance appraisal system may then be discussed. Although specific objectives of a particular system probably depend on organizational variables such as management philosophy, size, products, and expertise of employees, most systems share the following general goals as outlined by Winston Oberg, Professor of Management at the Michigan State University School of Business Administration:

Help or prod supervisors to observe their subordinates more closely and to do a better coaching job. Motivate employees by providing feedback on how they are doing. Provide back-up data for management decisions concerning merit increases, transfers, dismissals, and so on. Improve organization development by identifying people with promotion potential and pinpointing development needs. Establish a research and referral base for personnel decisions (Ref 19:61).

The goals set forth by Oberg imply the presence of three distinct steps in the appraisal process. First is the need to differentiate between employee performances through observation. Second is a need to document through the reporting of performance. Third is the necessity to provide an effective communication link between supervisor and employee. Harold Mayfield summarized this process when he stated,

. . . the ultimate goal is to set in motion mutually agreed on steps that will help the subordinate improve his effectiveness on his present job (Ref 15:67).

Approaches to Appraisal. There are numerous techniques, methods, and schemes employed to appraise and document employee performance. However, no one has yet come forward with a system that will accomplish the intended goals without some accompanying problems. But most every system does have some strong points, and the objective then, is to find a system which maximizes its strong points and minimizes its weaknesses. A complete examination of all types of systems is beyond the scope of this thesis, but an overview of some of the more prevalent techniques in use today may be worthwhile.

The straight ranking technique has been used extensively because of its simplicity. In this system, the supervisor evaluates and ranks all employees from the best to the worst on a continuum. Often times, this technique involves the development of a "score" upon which the ranking is based. A modification of this system integrates it with a forced distribution curve, so that each high rating is balanced by a corresponding low rating. This feature, commonly referred to as a zero-sum approach, will be further discussed later in the chapter.

Another widely used technique is the person-to-standard type of rating. When this system is employed, the employee is compared to pre-established work standards and an overall rating then computed (Ref 4:9).

One of the more recent concepts in performance appraisal, centers on a deeper involvement of the employee in the process. The philosophy underlying this concept is that resistance to conventional appraisal programs reflects an unwillingness on the part of management to treat human beings like physical objects. Certainly the needs of the organization are important, but so are those of the individual (Ref 16:90, Ref 20:23). Under this approach, an appraisal scenario similar to the following could occur:

- (1) Development of job description by participation of employee and supervisor
- (2) Major responsibilities of employee spelled out and understood
- (3) Expected results of responsibilities constitute expected job standards
- (4) Employee and supervisor meet periodically to review results, formulate corrective action, and modify responsibilities if necessary (Ref 1:232).

While this approach is not readily adaptable to production-line jobs, it is being used more and more in executive and managerial oriented positions (Ref 4:11).

Douglas McGregor in the article "An Uneasy Look at Performance Appraisal" discussed the following advantages of such an approach.

- (1) It rests on the assumption that the individual knows - or can learn - more than anyone else about his own capabilities, needs, strengths, weaknesses, and goals.

- (2) The subordinate is no longer a passive object in the process; is not a pawn in a "managerial chess game".
- (3) Proper role of the superior is clearly defined - helping the subordinate relate his career planning to the needs and realities of the organization.
- (4) Emphasis is placed on future action, not past records.
- (5) Accent is on performance, on actions relative to goals, lessening the tendency for personality of the subordinate to become an issue (Ref 16:90-91).

Problems. Although the search for better appraisal systems continues, many of the problems that have plagued systems throughout the years remain. A review of some of the more common problems encountered in civilian systems may be useful as a basis of comparison to the USAF systems to be discussed later.

A common problem identified by those in a managerial or supervisory position is "role conflict" (Ref 4:12). This occurs when the manager acts as a coach, motivator, or counselor on one hand, then is asked to honestly evaluate performance on the other. In effect, these dual responsibilities can cause the manager to think of his position as comprising two different functions at the same time.

Another problem that concerns many managers is "time". The requirement to complete a performance report when much of the manager's time is taken by the crises and problems inherent in today's business environment, means that it will often be less than enthusiastically accomplished. Often the result is that performance appraisals end up as items of low priority (Ref 4:12).

A commonly acknowledged problem is rater leniency. This can occur for several reasons. Fundamentally, there is a dislike on the part of many managers to criticize a subordinate. Therefore, the

easiest path is followed and a "top block" rating is given (Ref 4:13). Leniency may also be a form of managerial boasting. By giving high ratings to his subordinates, a manager may really be saying, "I am such a good manager that all my people do outstanding work" (Ref 21:6). In any event, the result is the same - the ratings are not valid and are of less value to management.

The "Halo effect" has also been recognized as a problem in appraisal. This is the error of concentrating only on a person's most distinguishing traits to the exclusion of his overall contribution. The result is that his performance is judged primarily on the general impression made by these pervasive traits (Ref 21:6).

Inflation of ratings continues to be a major problem facing most systems (Ref 4:14). A combination of factors is responsible for this phenomenon. In many cases, managers give subordinates the benefit of the doubt when unsure of the exact rating. The already discussed rater leniency and a natural reluctance to "play God" are also contributors (Ref 16:134). Finally, the belief that everyone in the organization is basically doing a good job probably help push ratings upward (Ref 4:14, Ref 21:11). Regardless of the cause, the effect of inflation is to reduce the utility of performance appraisal to management.

Forced Distribution Schemes. To combat inflation and increase the usefulness of performance appraisals, some organizations have adopted forced distribution curves. One of the chief arguments for this type of system is that it will "tell a man where he stands". In addition, it is assumed that the use of a peer-comparison system will have a positive, or at worst, a neutral effect on performance.

The assumption is that the good performer will be inspired to work even harder and improve his standing, and that the poor performer will be warned to improve his performance or go elsewhere (Ref 26:155). However, in a study of one division of a large electronics company by Thompson and Dalton, these contentions were disputed.

In the division studied, each employee was rated on a scale from a lowest possible score of 8 to a highest possible score of 72. To insure against inflation, each department in the division had to have an average score of 40 for its employees. The system had been in effect several years at the time of the study. The attitude of several management personnel was expressed by the division supervisor:

Unfortunately under TPA (Technical Performance Appraisal), we have to tell one half of our engineers that they are below average. After we tell a man his score is below 40, he won't do anything for a month. He stewes over his low rating, and he may even take a few days sick leave, even though he's not physically sick. After a month or two, we may be able to get him working again with the hope he'll do better next year, but that's really a false hope. He won't get a better score next year, because the man above him now will still be above him next year, even if he does improve (Ref 26:152).

Additionally, it was found that those who received the lowest scores were not the ones to leave the company. Of the 60 engineers who left over a four year period, almost all were rated as above average or average. Apparently those with low ratings lost confidence in their abilities to "make it" with another company and decided to remain with the same company for security (Ref 26:153).

As striking as these findings were, Thompson and Dalton contend that the strongest unrecognized effect of a zero-sum appraisal system is the impact on management thinking (Ref 26:153). By making a manager rate a subordinate as average or marginal, he is almost forced to

think of the employee in that way. In turn, the subordinate will sense this attitude, and it will have a negative effect on his performance. Finally, they contended that such methods invite invidious comparisons of assignments and tasks along some dimension of "value to the company" (Ref 26:154). In conclusion, they argued that a comparative ranking system would be a deflating experience for 70 to 80 percent of all technical personnel. And coupled with the findings of another study at General Electric, they postulated that such a system would have a negative effect on employee self-esteem (Ref 26:155).

USAF Systems

When the Air Force became a separate service, the Army rating procedure continued to provide the precedent for Air Force evaluations. AGO Form 67-1, implemented in 1947, consisted of four sections. Two of these provided non-evaluative, descriptive information, while another section provided the rater with a series of multiple-choice questions concerning ratee characteristics. The fourth section provided space for written comments by the reporting officer. When initially introduced, experts in the field of personnel evaluation proclaimed the virtues of the system. Its purpose was to record the performance of specific duties, provide information on certain general qualifications considered essential in the military, and to document the existence of exceptional characteristics and potential among individuals in the Air Force (Ref 4:18).

The form was discontinued in 1949, however, because of widespread officer dissatisfaction with the system. Raters objected to the forced-choice technique, overall discrimination of performances was

considered poor, and it was common for staff officers to receive consistently higher ratings than those further removed from the rating official (Ref 2:A-1, Ref 4:18). The result led to a search for an improved system.

In 1949, the first truly "Air Force" evaluation form, AF Form 77, was adopted. It was in large measure based on research which had been conducted by the American Institute of Research (AIR), Pittsburgh, Pennsylvania. The AIR group interviewed 640 officers in the field to determine what descriptive statements would determine the effectiveness of an officer in a specific situation. From an initial set of over 3000 descriptors, the list was trimmed to 54 critical requirements under six main heading (Ref 4:19).

It soon became apparent, however, that this form also had several weaknesses. An extensive study of the system in 1951 led to the following conclusions: the system was too complex and time-consuming, considerable inconsistency in criteria existed between various sections of the form, and scores piled-up at the upper end of the spectrum (Ref 2:A-2).

In 1952, a revised system was introduced which provided the basis for Air Force evaluations for the next two decades. To develop the form, rating programs of over 40 leading American industrial organizations, those of other services, and of the Royal Canadian Air Force were studied. From this research, a draft form was devised and submitted for field testing. The form eliminated all mathematical computations, thereby removing one of the major objections to the previous system (Ref 4:22). In addition, a set of eight rating factors was devised to measure performance and potential.

The objective of the system was to provide the Air Force with reliable information on which to base personnel actions (Ref 4:24). This would include identification of personnel for promotion, training, education, and force reductions, and other such actions.

A total of six forms were utilized in the system, but the two most frequently used forms were AF Form 77 (Company Grade Officer Effectiveness Report) and AF Form 707 (Field Grade Officer Effectiveness Report). Although similar in physical appearance, the two forms were actually designed to measure different parameters. Basically, the Form 77 was designed to measure a "doer's" performance, while the Form 707 was supposed to measure "executive talent" (Ref 4:26).

Rating Process. In all of the past systems employed by the USAF, the same basic steps were followed in the rating cycle. First, the rating official observed the performance of the subordinate. Next, he evaluated that performance by comparing it to the performance of the ratee's peers. Finally, the performance was recorded by completing the appropriate form (Ref 4:28). It is interesting to note that establishment of an effective communication link between subordinate and superior was not an expressed function of the systems.

Problems of Previous Systems. A review of the problems which plagued Air Force evaluations throughout the years reveals a great similarity to the problems encountered in the civilian sector. According to Air Force officials, these centered on rater leniency, differences in rater standards from individual to individual, and the reporting of general impressions of the ratee vis-a-vis specific accomplishments (Ref 2:1-2). Eventually, these specific problems combined with the general problem of inflation, decreased the effectiveness of the OER as a personnel management tool.

As an illustration of the inflationary spiral which had engulfed the system, a brief look at some statistics is enlightening. As late as 1961, less than 5 percent of all officers received top block ratings of 9 (Ref 22:1). By 1974, however, 90 percent of all officers were receiving a perfect score of 9 (Ref 8:56). In addition, 75 percent of all officers had received at least five consecutive ratings of 9 (Ref 2:1).

The reasons for inflation were numerous. Purdie, in an ACSC study, discussed several possibilities. Comparing officers in one grade with those in lower grades and with less experience, a fear that other raters were more lenient, a feeling that one's own subordinates are better than average, desire to promote harmony, distrust of the system, and the Air Force "up or out" policy were all suggested (Ref 21:11). Whatever the reasons, the effects of widespread inflation were obvious. Some officers showed up as better than they actually were; others, who received more honest appraisals, suffered in comparison. Thus, Air Force officials were put into the difficult position of having to judge an individual on the basis of OER's received before inflation was so serious, or utilizing the narrative portion of the OER to interpret the actual performance (Ref 21:12).

By 1968, dissatisfaction with the system was widespread and the search for a better system was begun once again (Ref 4:24).

The New USAF OER System

More than five years were spent formulating, coordinating, and testing various alternatives of the OER. Two agencies which had major roles in the development of the new OER were the Deputy Chief of Staff

for Personnel and the Air Force Human Resources Laboratory (Ref 22:1). These agencies conducted workshops, symposiums and discussions in which national experts drawn from industry, government research laboratories, and the armed forces participated. After an initial period of data collection, several alternatives were formulated and field-tested at various major commands. From these tests, recommendations and comments were elicited to evaluate the proposals. After considerable discussion and debate, the new system took effect in late 1974. The following sections highlight the more important aspects of the system.

Criteria Established. As a prerequisite to the successful implementation of an evaluation system, Air Force personnel officials recognized the necessity of some basic criteria. From experience, two criteria were considered essential.

- (1) The system had to be acceptable to those using it (the officer corps).
- (2) The system had to be easy to administer and understand (Ref 2:A-2).

Philosophy. The philosophy of the new system is clearly stated in AFR 36-10. Summarized, it is that evaluation, although important, is only one part of the personnel management process. As a result, when an officer is considered for promotion, assignment, career status, or other such actions, selection is based on several documented areas such as service data, educational achievements, decorations, and prior experience in addition to performance evaluation (Ref 2:A-3). The regulation stresses that officers should focus their attention on attaining distinction in all areas, not just performance evaluation.

Objectives of the System. The basic objective of the new system is almost identical to that of the previous system. As stated in AFR 36-10, it is to "provide the Air Force with essential information for use in personnel decisions" (Ref 2:1-1). In addition, corollary objectives of the system include "identification and motivation of officers for due-course or accelerated promotions" (Ref 2:1-1).

Rating Process. The process used in the USAF has always followed the same procedures. As outlined in AFR 36-10, it is based on observation of performance, evaluation of performance, and recording of performance. However, with the inclusion of motivation as a specific goal of the new system, it could be argued that counseling and coaching of the subordinate should also be a part of the process. It is interesting to note that AFR 36-10 specifically states that the new system is not designed as such a device (Ref 2:1-3).

Elements of the System. The vehicle by which performance is recorded for all officers in the grade of second lieutenant through colonel is AF Form 707. In section III, Performance Standards, the "rating factors" by which an individual was compared to others in the same grade, have been replaced by a set of 10 specific job standards. It is clearly stated in AFR 36-10 that the ratee is to be evaluated in this section only on how well the objectives of the particular job have been accomplished, and not in comparison with his peers. The 10 standards selected were chosen after a lengthy review of a larger list and are considered applicable to most Air Force situations (Ref 2:5-2).

The heart of the new system, however, lies in Section V, Evaluation of Potential (Ref 8:55). It is in this section that the ratee's overall potential for increased grade and responsibility is evaluated in comparison to his contemporaries. To insure that inflation does not occur, a controlled distribution curve is followed.

Air Force officials realized that merely the introduction of a new form would not eliminate rating inflation - the major weakness of the previous system. From experience, officials also knew that command directives, training of rating officials, and other forms of instruction had not adequately controlled inflation. To solve the problem, and at the same time make the OER more meaningful as a straightforward, honest appraisal of performance, a controlled distribution was imposed on the Evaluation of Potential rating.

The following maximum percentages are allowed.

- (1) 22 percent of officers in each grade may receive top block ratings
- (2) 50 percent of officers in each grade may receive ratings in the top two blocks
- (3) 100 percent of officers in each grade may receive ratings in the top three blocks

Accordingly, only "extremely rare individuals who should be advanced in grade or job responsibility ahead of contemporaries" should be given top block ratings. Support for this rating should provide specific justification in the comments section of the form (Ref 2:5-3).

The rationale for the overall breakdown of percentages was explained in an AFMPC news release as a method for insuring that a meaningful comparison of performance was established, while simultaneously, maintaining competitiveness for promotions and other personnel actions in the Block 3 category. Thus, Air Force officials

designated this rating as the "norm or average" mark which would apply to approximately one-half of the officers in each grade. It was felt that a smaller percentage in this block would be interpreted as tantamount to a "passover" rating which is the function of a promotion board, not the OER system (Ref 22:2).

Mechanics of the System. The actual mechanics of the new system--the rating and review cycles--have also been altered from previous ones. First, the number of participants in the rating cycle has been limited to three--a rater (usually the direct supervisor), an additional rater (normally the next officer in the chain of command), and a reviewer who is designated by the major command (MAJCOM) control point (normally the base/wing commander or equivalent of the organization).

This is a significant change from the previous system which allowed several additional indorsements. The reasons for limiting the number of participants in the rating cycle were also outlined by AFMPC. For some time, it was perceived by many USAF officials that indorsements had become a petitioning process by which officers sought to identify outstanding performers. As a result, many of the indorsements contained stereotyped, generalized comments and the validity of them varied from command to command (Ref 22:2-3). To remedy this situation and make the review cycle fair to everyone, it was determined that all OERs on individuals in the same grade and in the same organization would have the same termination point--the reviewing official.

Even more important than being the termination point for OERs within the organization, however, it is the reviewer who is bound

by the forced distribution curve in his evaluation. To accomplish this task, each reviewer conforms with an established Distribution Table that provides the appropriate distribution of ratings for various group sizes. The figures in this table are considered maximums (Ref 4:38-39). For example, in a group of five majors only one could receive a top rating.

Another change is standardization of the review cycles. Under the previous system, OERs were prepared, indorsed, and forwarded through the system on an "as required" basis. Since the control of the new OER system is predicated upon providing the review official with sufficient numbers of OERs in each grade to allow for meaningful comparisons, a new technique was devised. The concept of grouping all OERs by grade and having them reviewed simultaneously was adopted (Ref 4:40). For example, if a captain meets the criteria for a controlled report (as outlined in AFR 36-10), his OER is forwarded through the proper channels to the same reviewer as the OERs of other captains in the same organization. By regulation, the reviewer then evaluates each captain in his jurisdiction, mindful of the controlled distribution curve which he must follow. For captains, the annual review is accomplished in October. The same procedure is followed for all other grades at varying times of the year. To assist the reviewer in accomplishing this task, advisory review boards may be established at the reviewer's discretion. However, in all cases, the final decision on evaluations rests with the reviewing official.

Summary. The new officer evaluation system has incorporated several major modifications. The changes have been oriented toward correcting

specific deficiencies which minimized the effectiveness of the previous system, thereby enhancing personnel management. While the changes made would appear to have corrected some of the major weaknesses of previous systems, the question remains whether the system satisfies the basic criteria. Is it acceptable to the majority of Air Force officers? Is it understood? Is it easy to administer? In addition, what are the effects of the system on the USAF officer corps? Is it perceived as a "better" system? These are some of the questions to be addressed in the succeeding chapters.

IV. CHANGE IN THE ORGANIZATION: THE LEWIN MODEL

The purpose of this chapter is to present and discuss Lewin's Field Theory and relate it to the current situation in the Air Force. In order to establish a frame of reference for this theory, the first sections of the chapter discuss the concepts of the organization and organizational environment. Following this presentation, Lewin's Field Theory is discussed and its application to the officer corps is addressed.

The Organization

From the earliest of times, men have directed their efforts and the efforts of others towards the accomplishment of specific goals. Many hands and minds have been brought together and coordinated to form an organization, so that the collective sums of actions of the group surpassed the individual contributions of the members. The purpose of the organization, therefore, is to bring together basic resources in an orderly manner and arrange people in an acceptable pattern so that they can perform required activities (Ref 25:299).

What are the characteristics of an organization? George R. Terry, Professor of Business at Ball State University, lists four basic components.

- (1) Work is divisionalized
- (2) Persons are assigned to do the work
- (3) Relationships exist among the people doing the work
- (4) An environment exists under which the work is done (Ref 25:299)

The first three criteria are rather obvious and will not be further discussed. The last criterion however, deserves further explanation.

Organizational Environment

If one were to board a plane in Alaska in January and then fly to Hawaii, he would undoubtedly notice on his arrival the difference in atmospheric climate between the two locations. The same type of comparison can also be made between two different organizations - the climate or internal environment can be much different. However, instead of being a physical atmosphere, the organizational environment is intangible and is perceived only by the human resources of the organization. Organizational environment has been defined as:

. . . the set of characteristics that describe an organization and that (a) distinguish one organization from another, (b) are relatively enduring over time, (c) influence the behavior of the people in the organization (Ref 11:376).

Organizational environment includes such things as the physical location of the work, materials and machines. It also includes non-physical properties such as general working conditions, attitudes of co-workers and superiors, influence of external forces and written or oral policies and procedures.

The importance of organizational environment has been demonstrated in studies which have strongly associated it with individual job satisfaction and performance (Ref 11:378). Several studies accomplished in recent years have attempted to define the dimensions of organizational environment. In one study by Litwin and Stringer, it was concluded that employee attitudes about co-workers, management personnel, and the formal structure of the organization captured

the essence of environment. In an experimental test of this study, a questionnaire was administered to the employees of a mid-west medical center. It was found that these three organizational environment factors were highly correlated with job satisfaction (Ref 11:377-78).

In another study, House and Rizzo constructed a questionnaire to measure environment via a set of management practices. Among variables included in the study were subordinate development, decision making apparatus and receptiveness to ideas and suggestions. This questionnaire was also tested at the same medical center and the practices were found highly correlated to job satisfaction (Ref 11:378).

From these studies and others, it appears that a strong correlation exists between individual perceptions of good organizational environment and job satisfaction. Therefore any change which might affect this environment could have repercussions on individual job satisfaction or morale.

Officer Corps Defined As Organization

The officer corps also exhibits the characteristics of an organization. Work requirements for officers are varied and complex. Formal superior-subordinate relationships as well as informal relationships exist. Finally, an environment is present. Some have termed this environment as esprit de corps or morale.

The Lewin Field Theory

To facilitate understanding of Lewin's Field Theory of change in an organization, several references to an elementary physics problem may prove helpful.

Problem. Consider a wooden block placed on an inclined plane (See Figure 2). The block will move down the plane if (a) the component of the force of gravity along the plane is greater than the opposing friction force, or (b) an external force (e.g. a push) is applied which in combination with the gravitational force is greater than the friction force. On the other hand, the block will remain stationary on the plane even in the case of a push if another external force (e.g. a nail) is applied to the wood and plane.

Lewin Forces and Level of Functioning. In a similar way, Lewin argued that forces work within an organization. There are driving forces which promote organizational movement or change much as the gravity and push could change the position of the block. There are also restraining forces which deter movement or change as does the friction force and the force of the nail in the physics example.

When all the forces have interacted and reached a steady state condition, equilibrium is established. In the example, the block may move to some new point along the plane where the friction force may overcome the component of the gravity force. Lewin termed this process of opposing forces seeking an equilibrium as "forces interacting within a designated field" or a "force field" (Ref 12:26). In an organizational setting, Lewin called this continuous interaction of forces at equilibrium the organizational level of functioning. Paraphrased, this level of

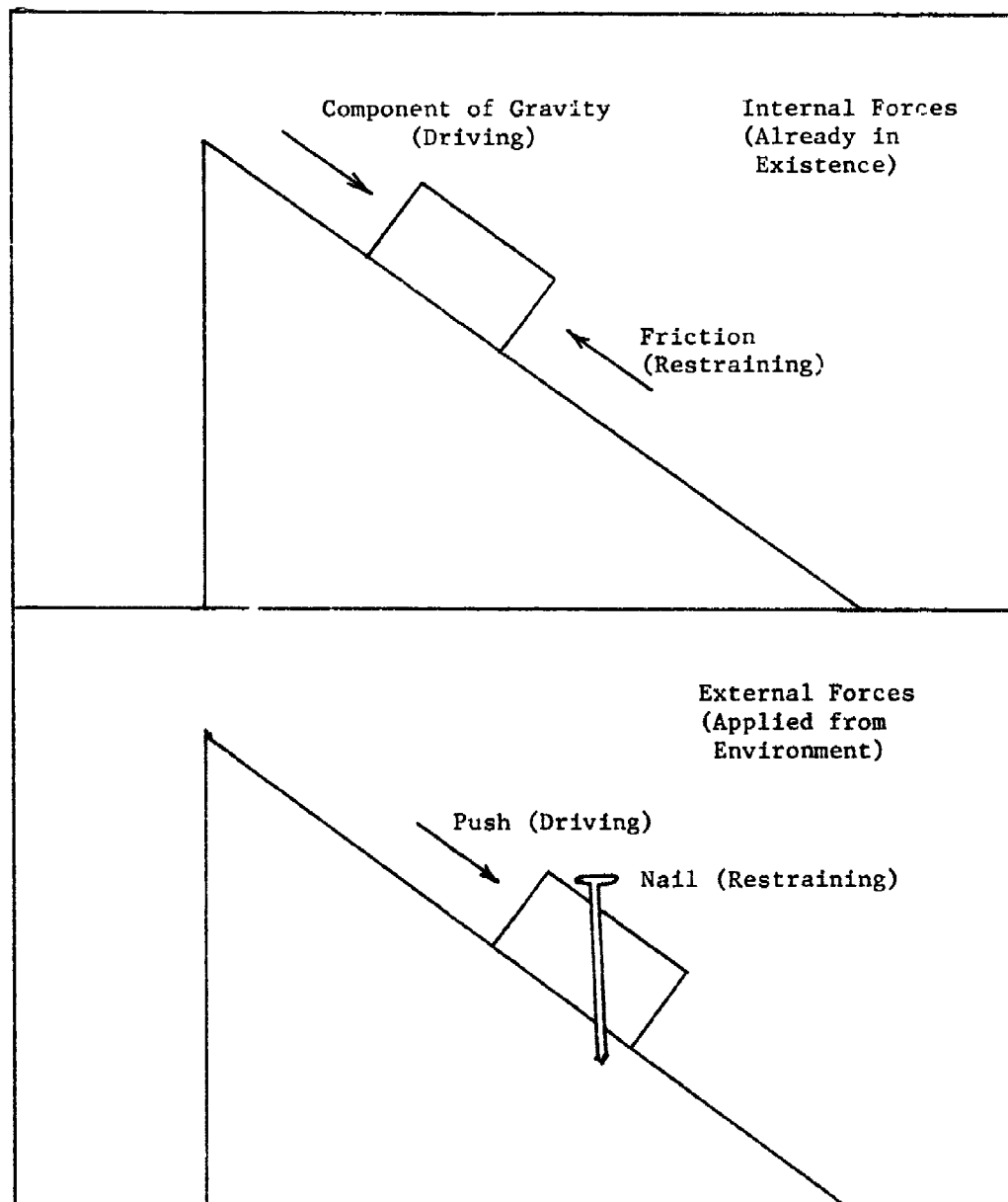


Fig. 2. Forces Acting on Block on Inclined Plane

functioning is simply how an individual views the good and bad aspects of his organizational surroundings to arrive at a general feeling about the organization (Ref 12:50).

Officer Corps Level of Functioning. From the preceding discussion it is apparent that a definition of officer corps level of functioning encompasses the dimensions of environment. The definition developed for this research was borrowed from works by Clark and Lippitt and then translated into the Lewin framework. Clark described a healthy organization as one in which the individual and the group manage to achieve optimal resolution of individual and group goals (Ref 7:282). Lippitt characterized the functioning of an organization as being " . . . strongly affected by its formal and informal goals and the extent to which these goals are understood and accepted by all members" (Ref 13:49). Thus, the functioning and morale of the officer corps was defined as:

- (1) The degree to which the goals and aspirations of individuals are in harmony with those of the Air Force as an organization. Do you feel Air Force missions are meaningful and important?
- (2) The degree to which individuals feel the Air Force as an organization is pursuing its goals in the proper manner. Do you feel the Air Force's day-to-day operations are effective and appropriate in accomplishing the mission?
- (3) The degree to which the Air Force allows individuals the opportunities to fulfill their reasonable needs for security, recognition, self-esteem, and growth. Do you feel individuals receive a "fair return" for their contributions?

In general the functioning and morale of the officer corps is a collective measure of whether individuals perceive that Air Force goals are correct, and that the policies and procedures used to accomplish those goals are good.

Change in an Organization

If the level of functioning is determined by a state of equilibrium among various organizational forces, then when the forces become imbalanced, the level of functioning may be altered. In the physics example, the block would move from one position on the plane to another if the component of the gravity (driving) force was greater than the opposing friction force. The same principle applies in an organization. Whether or not a new equilibrium level of functioning is established is dependent on the strength of the driving forces. If the driving forces are not of sufficient strength, then the level of functioning will remain at its previously established point of equilibrium. This is shown in Figure 3. Thus organizational change is here defined as a new and different level of functioning of the organization.

Change Mechanism

Lewin hypothesized the actual change mechanism in an organization as a three step process - unfreezing old perceptions, learning new perceptions, and then freezing or re-inforcing the new perceptions.

Unfreezing. A basic tenant of Lewin's Theory is that change does not occur spontaneously. Rather, a reason for change must be created within the organization (Ref 23:98). In this regard, Lewin placed great emphasis upon the interdependence of a person's self image, his image of others, and his definition of the current environment in the organization. Unfreezing can occur if

- (1) The individuals self image is out-of-line with what others perceive it should be
- (2) The individuals definition of the situation is out-of-line with "reality" as defined by others
- (3) The individuals image of others is out-of-line with their image of themselves
- (4) A combination of these factors (Ref 23:100)

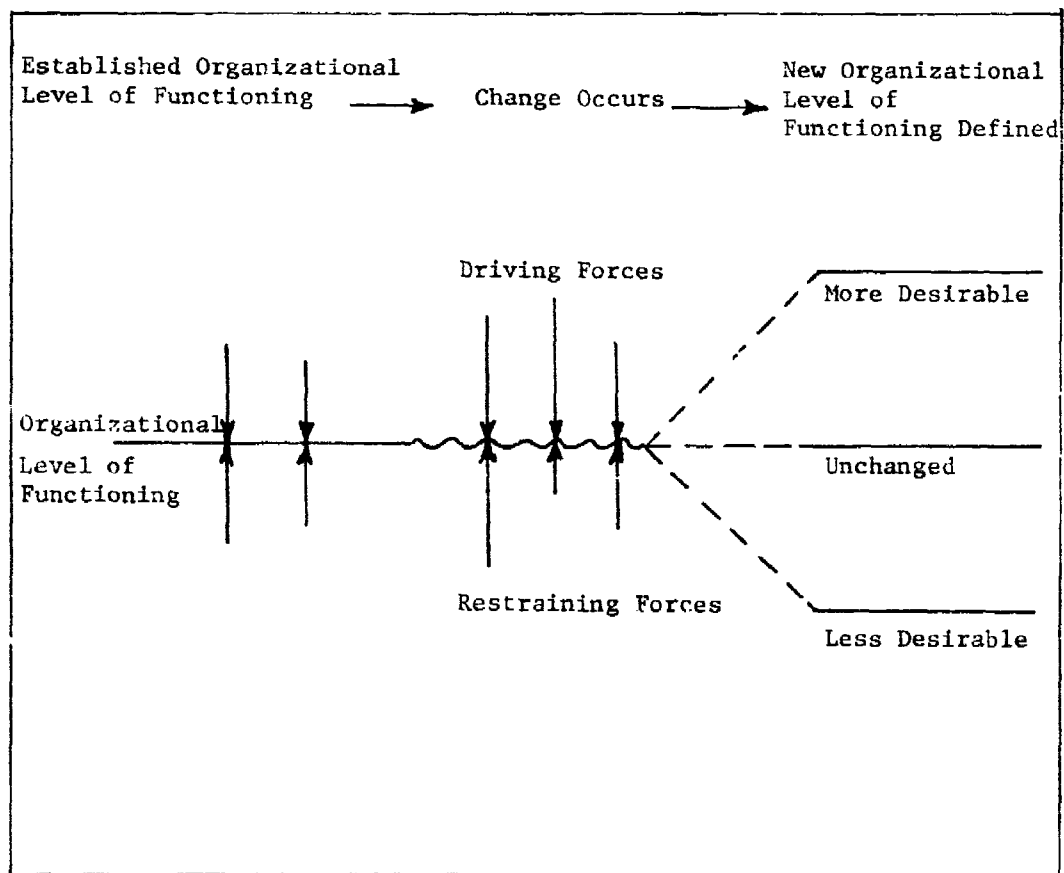


Fig. 3. Schematic of Driving Forces

The action that an individual takes when "unfreezing" occurs depends upon his analysis of the previous assumptions and beliefs he had about himself, others, or the organization. If he decides that his past beliefs are unwarranted, the next step - learning new responses or beliefs is begun.

Learning New Responses - the Change Agent. Once the individual (target) develops a need for some alternate beliefs or responses, he assimilates and integrates new information. This can be accomplished via one or many sources. It can involve active participation on the part of the target or mere passive acceptance of an already changed situation.

Sometimes, the change agent also acts as the catalyst to "unfreeze" old patterns of behavior. In this instance, the target is involuntarily placed into a changed situation. Usually the change agent is a single source and occupies a position of formal authority (Ref 23:104). Lewin classified this technique as defensive identification. The target's only role is to learn some new response and it is implicitly recognized that he is not to question the validity of the action (Ref 23:105). An example of this type of situation would be a new written policy or directive issued by executive management without consultation of employees. Another example of this situation is the new OER system. In this case a new evaluation system was adopted by USAF officials without widespread participation by Air Force officers in its formulation. The results is that officers have been placed into a changed situation by executive declaration - an example of defensive identification.

Lewin also felt that new responses could be learned through positive identification. In this situation, the target is presented with new ideas or information, but is free to reject these if he desires. Lewin argued that this is a more healthy situation, because both the change agent and the target have the opportunity to enhance two-way communication and build a stronger bond of trust and faith (Ref 23:105).

Regardless of the approach utilized, the second step in the change process is a period of learning new responses or behavior by the target. Lewin contended that this learning would be in the form of a cognitive restructuring (gaining previously unknown knowledge) or motivational stimulus (like or dislike of some aspect of the organization and its function) (Ref 12:66).

Refreezing. Refreezing occurs once the new response or behavior is integrated into the organizational environment. When this occurs, the driving and restraining forces are balanced and a state of equilibrium is re-established. It is at this point that several key questions can be answered. Did the new information or the new responses learned cause a shift in the organizational level of functioning. If so, what is the new level? Will this level be maintained?

Maintenance of Change

Many behavioral scientists have noted that change in an organization is often followed by a reversion to past patterns of behavior by individuals within the organization (Ref 3:330). How is change maintained? Tannenbaum in his study of organizational behavior lists three criteria for the successful implementation of new ideas or methods.

- (1) The reasons for change must be understood by all
- (2) The change must be perceived as beneficial, or at least not harmful to those it affects
- (3) The new behavior whether in the form of new skills, attitudes, or frame of reference (e.g. micro to macro viewpoint) must be emphasized (Ref 24:84)

In addition the full ramifications of the effects of the change must be considered. In other words an expedient solution to a problem should not be undertaken without regard to the overall effects that this solution may have on long range concerns (Ref 3:331). A critical element in this consideration is a perception by all members that their interests as well as those of the organization are being protected (Ref 6:275).

Summary of Lewin's Field Theory

The Field Theory can best be described as a method of analyzing causal relationships, and then making scientific observations. The strategic points of the theory rest upon the assumption that organizational change affects not only the individuals in that organization, but the entire fabric of the organization itself (Ref 12:45).

Change is viewed as equivalent to problem solving. Forces or variables surrounding the organization must be identified and then a consensus developed as to which are most influential. Lewin compared his theory to a live process such as a river which is continually in motion, but still has a recognizable form (Ref 12:172).

Field Theory Applied to USAF Officer Corps

It is the contention of this research that the Lewin Field Theory can be utilized to describe the present situation in the officer corps.

Using the definition of level of functioning discussed earlier and adding the change process represented by the new OER system, the model is depicted in Figure 4. The next chapter will describe the process used to quantitatively measure each of the three phases of the model - previous level of functioning, forces generated by the new OER, and present level of functioning.

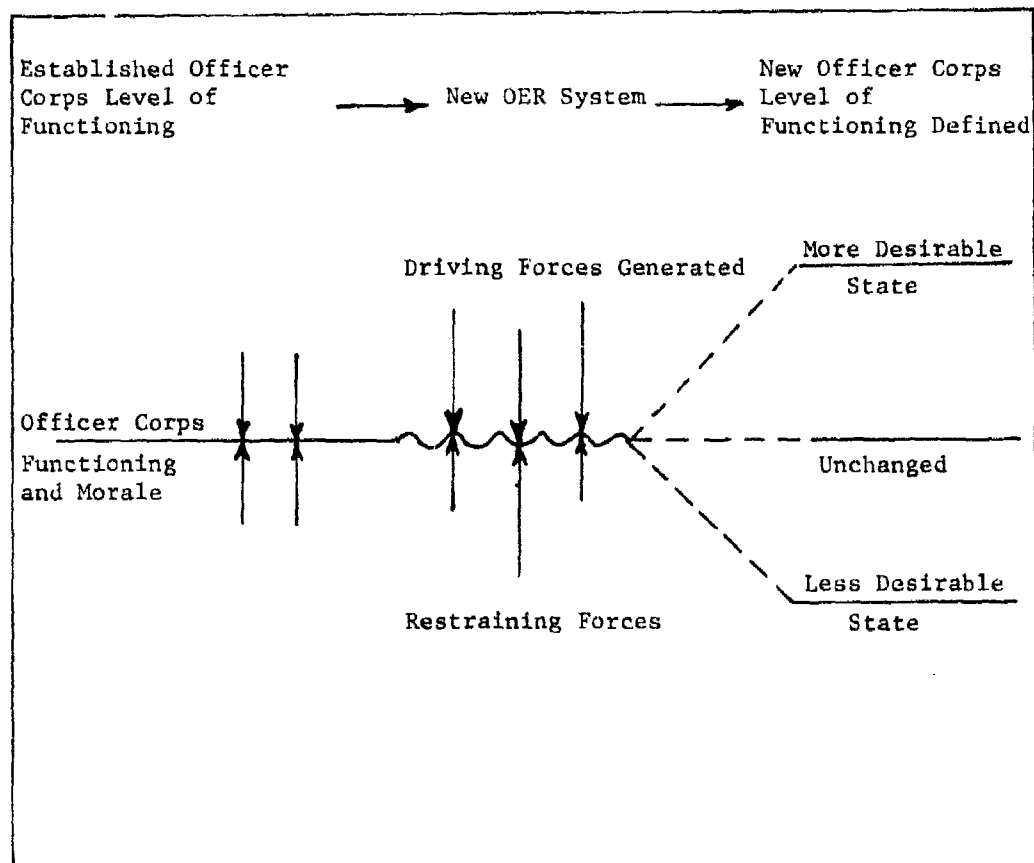


Fig. 4. Lewin Model of Impact of New OER System

V. QUESTIONNAIRE DEVELOPMENT

The purpose of this chapter is to trace the steps followed in the construction of the survey questionnaire. The initial part of the chapter concentrates on the Lewin-based approach used in Section III of the questionnaire. It begins with a discussion of how the fundamental concepts of Lewin's Field theory were transformed into a quantifiable framework. Then, the scoring system for these questions is discussed. The next section of the chapter explains the basis for the selection of several AFMIG questions used in Section II. This is followed by a discussion of the demographic questions which were included. The entire questionnaire is found in Appendix B.

Development of the Lewin Construct (Section III)

In Chapter 4, the basis of the Lewin Field Theory was presented. The theory hypothesizes that change in an organization activates certain driving forces which ultimately may influence that organization's level of functioning. The purpose of Section III in the questionnaire was to identify the driving forces (effects) generated by the new OER system. In order to use the theory, each respondent was provided the definition of the officer corps level of functioning (termed functioning and morale) given in Chapter 4. With this definition in mind, each respondent was then asked his perceptions of the effects the new OER system had upon the functioning and morale of the officer corps.

Driving Forces (Effects). The compilation of a list of potential effects was based in large measure on the Carr and Carey studies which had highlighted several areas of high officer concern. These included:

- (1) Potential impact on officer career progression
- (2) Potential impact on officer assignments
- (3) Potential impact on personal goals
- (4) Validity of peer comparisons
- (5) Validity of the rater/reviewer cycle
- (6) Potential psychological impacts on the officer corps in terms of morale, peer cooperation, and motivation

As evidence of the concern of officers about the potential effects of the system on the officer corps, the following statistics were compiled in the Carr and Carey studies:

- (1) More than half the officers surveyed (52.9 percent) were unsure of the effects of the new system on promotions. Only 26.4 percent believed that the chances for promotion were improved under the new system (Ref 5:64).
- (2) Almost one-quarter (22.6 percent) of the officers surveyed replied that they would not seek an assignment at a highly competitive level (Ref 5:65).
- (3) 43.9 percent of the officers surveyed said that their personal goal achievement would be affected by the new system (Ref 5:33).
- (4) A high percentage of officers felt that primary zone considerations and AFSC would be a major determinant of final ratings (77.2 percent and 50.5 percent respectively) (Ref 5:59).
- (5) Only 36.8 percent of officers surveyed felt that the reviewing officials were qualified to decide who gets the top two ratings (Ref 5:48).
- (6) More than half of the respondents felt that the forced distribution of ratings would have a negative impact on peer cooperation (Ref 4:65).

After reviewing these findings, it was determined that any potential effects of the new OER on the officer corps could be categorized into one of four areas.

- (1) Career planning which included promotion estimates and personal goal achievement.
- (2) Job and mission performance which included performance rewards, competition, motivation, and job freedom.
- (3) Fairness which included the rater/reviewer cycle, validity of peer comparisons, zero-sum approach, flexibility of the system to differing circumstances.
- (4) Air Force personnel actions which included promotions and job assignments.

Having determined the effects to be measured, the only remaining step was to fit these potential effects into the Lewin model. This was accomplished by providing both positive and negative aspects of these effects and then requesting each respondent to choose the option which most closely agreed with his own perception of the system's impact on the officer corps functioning and morale. For example, Question 37 asked for the respondent's opinion on whether the new OER system affected the fairness of officer evaluation. If the respondent answered affirmatively, he was then asked whether a meaningful comparison of peers in an organization was possible or whether other factors such as AFSC or primary promotion zone considerations were the basis of comparison. This procedure was continued throughout the Lewin-based questions. A pictorial representation of the model is presented in Figure 5.

Scoring System. Since each effect had both a positive and negative anchor point associated with it, the system used to score the questions ranged from 1 to 7. As shown in Figure 5, a score of 1 represented a highly negative perception, a score of 4 was equivalent to a neutral perception, and a score of 7 was a highly positive perception.

Analysis of Effects. By analyzing the responses in this section, an estimate of the specific effects generated by the new OER system was obtained. The total impact of these effects was then measured by asking each respondent a final question "What is the impact of the new OER upon the functioning and morale of the officer corps?" Through the use of multiple regression analysis, each of the specific effects were analyzed to see which were most influential in determining the responses to this final question.

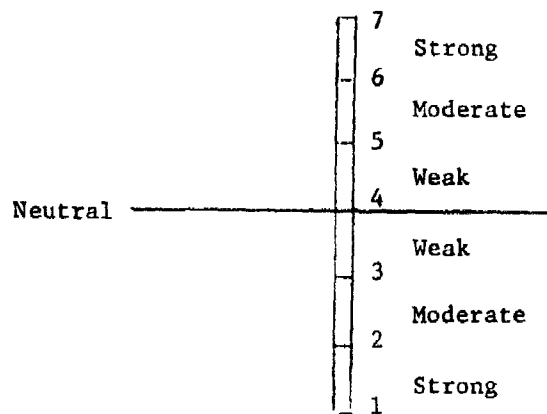
37. Is the fairness of officer evaluations affected by the new OER?

☐ Yes

☐ No

Possible Effect

Meaningful Comparison of Officers in an
Organization Now Possible



Comparison based on other factors
such as primary promotion zone,
AFSC, etc.

Fig. 5. Sample of Lewin-Based Question

AFMIG Questions (Section II)

Each question included in Section II was taken directly from the original AFMIG survey of 1975. The purpose of these questions was to provide a measure of the officer corps level of functioning. The four dimensions of this concept measured were WORK, LEADERSHIP-SUPERVISION, EQUITY, and PERSONAL GROWTH OPPORTUNITIES. All questions were Air Force job related, therefore, responses could be influenced by perceptions of the OER system.

By comparing the responses obtained in this survey to the responses obtained in the original survey for a similar sample population (determined by demographic variables), any differences between the current officer corps level of functioning and the previous level were analyzed.

To supplement this comparison, each respondent was also asked for his perceptions of the impact of the OER on each of the four dimensions investigated in this section. In addition, several of the AFMIG questions closely paralleled issues addressed in Section III. For example, Question 13 asked, "Do you want greater responsibility than your current job?" Question 38b addressed new OER system effects on officer initiatives.

By analyzing all of these responses, two goals were achieved.

- (1) The current officer corps level of functioning as represented by the four dimensions of WORK, LEADERSHIP-SUPERVISION, EQUITY, and PERSONAL GROWTH was compared to the previous level.
- (2) Any driving forces which moved, or, in the future may move, the level of functioning were highlighted.

Demographics (Section I)

The primary purpose of the demographic questions was to satisfy some assumptions in regard to the AFIT student population and then provide

a basis of comparison for the statistical analysis. It was assumed that the sample was primarily composed of company grade officers, that they had career intentions, and that they represented a diversity in AFSC and experience.

In addition the demographic questions provided useful information in regard to the new OER system. Each respondent was asked whether or not he had been evaluated under the new system. If he had, he was asked for his score.

Finally, the demographics were instrumental in selecting an appropriate sample population from the original AFMIG survey. By searching for pervasive traits of the AFIT sample, the AFMIG sample was then analyzed to determine a group with comparable characteristics.

Summary

The purpose of the survey questionnaire was to provide a quantifiable measure of the Lewin model previously discussed. The 1975 AFMIG survey results established a standard for the officer corps level of functioning. The OER section of the questionnaire sought to identify and measure the driving forces created by the new OER which impacted the officer corps level of functioning. The 1976 AFMIG results determined whether the previously established level of functioning had been altered. From these results, a preliminary analysis of the effect of the new OER on the officer corps is possible.

VI. PRESENTATION OF RESULTS

This chapter presents major findings of the research effort. In the initial segment, the Lewin construct employed in Section III of the questionnaire is evaluated. Following this evaluation, statistical analysis of the questionnaire data is provided. From these results, an overall assessment of the impact of the new OER system can be made.

Evaluation of Lewin Construct

In Chapter 5, the formulation of the questionnaire was discussed. This section describes the steps involved in the evaluation of the Lewin construct used in Section III.

Pretest. The original questionnaire was distributed to graduate students in the Operations Research and Systems Management programs. One of the primary purposes of this pretest was to obtain reaction to the Lewin construct. In order to gauge respondent reaction, comments and criticisms regarding any aspect of the questionnaire were encouraged.

Of the 92 questionnaires disseminated, eleven were returned with comments pertaining to the Lewin construct. Reaction varied from favorable ("the Lewin approach shows creativity and inventiveness lacking in the usual USAF survey") to completely unfavorable ("I don't want to waste my time filling this section out"). Most comments focused on particular aspects of the approach which were not clear. Several respondents were confused by the instructions provided for Section III, and commented in that regard. Of particular importance was apparent confusion regarding the proper method for marking the answers. Another complaint was the absence of a marked

scale to delineate level of agreement with a particular listed effect. However, despite these difficulties, only two of the forty-seven questionnaires returned included comments rejecting the Lewin construct completely. Encouraged by these initial results, several interviews were then conducted to supplement the views expressed in the pretest, and to gain further insight into the utility of the construct.

Interviews. Fifteen members of the pretest group were interviewed. Each interview was divided into four categories. These were (1) an overall impression of the Lewin construct, (2) discussion of the approach's strengths, (3) discussion of the approach's weaknesses, and (4) suggestions for improving the approach. The following consensus of opinion was garnered from these interviews:

- (1) All of those interviewed understood the concept as opposing potential forces which impacted on the functioning and morale of the officer corps. The construct was considered acceptable by most of those interviewed and an improvement by some. Eight individuals considered the approach essentially the same as the conventional Likert scale approach. Four individuals regarded the construct as interesting or innovative and felt that it provided a chance for better feedback. The main reason advanced for this opinion was that the construct encouraged the respondent to choose an answer which was not a "middle of the road" or "neutral" position. Two individuals expressed the opinion that some modifications were necessary to make the Lewin construct more understandable. Suggestions centered on including clear examples of the correct procedure for marking answers. Finally, one interviewee described the Lewin approach as "a waste of my time." He was opposed to any type of questionnaire which was not in a Likert-scale type format.
- (2) The strength of the construct seems to lie in its ability to encourage commitment by the respondent on a particular issue. It was felt that the explicit statements of potential effects allowed an individual an easy vehicle by which to express positive or negative reactions to a given subject area.

- (3) Flaws in the construct were also revealed. Most of those mentioned were the same ones which had already been brought out by pretest comments. Confusion existed regarding the instructions and proper answering techniques for Section III. These ambiguities led several persons to "guess" as to what the proper procedures were. Others felt that the system should be made more flexible by allowing space for effects not already listed. Finally, it was the consensus of the group interviewed that a descriptive scale (e.g. WEAK - MODERATE - STRONG) should accompany the effects. This would allow for easier determination of the level of agreement with a particular effect.

Revisions. With these thoughts and opinions in mind, it was determined that the Lewin construct was worthy of further study, but that some modifications would have to be made. The philosophy employed in the revisions was to make the construct as simple as possible without destroying the conceptual framework.

To alleviate the difficulties discovered in the pretest and following interviews, the instructions for Section III were completely reviewed, and then modified to insure clarity. Several examples demonstrating the proper methods for marking answers were also provided. Spaces were included for each respondent to add any effects which he felt were important, but not already provided. Finally, a marked STRONG - MODERATE - WEAK scale was included to correspond to strength of agreement with each listed effect.

Reaction from AFIT Student Population. After these changes had been made and an Air Force Survey Control Number obtained (USAF SCN 7T-10), the survey was distributed to all Engineering School students who had been assigned to the school in 1976. Approximately 225 questionnaires were distributed, and 160 were returned in time for inclusion in the statistical analysis. Subsequently, another fourteen surveys were returned for a total return rate of approximately seventy-eight percent.

There was little reaction from this group regarding the Lewin construct. Only two of the questionnaires returned contained comments which were unfavorable. One of these respondents said he was too busy to try to understand the concept. Another claimed the possible responses were too limited, even though provision for additional comments had been made. On the other hand, one questionnaire was returned which included favorable comments about the Lewin approach. The comments termed the Lewin construct as containing "interesting and thought provoking" ideas.

Before making a final judgment on the utility of the Lewin construct, one more point should be considered. Although only two unfavorable comments were received from the AFIT group, a total of eight respondents left this segment of the questionnaire blank. One of those who did so stated that he was not well enough informed on the new OER system to make any judgments. Whether these other blank responses were the result of similar reasoning or whether they were actually passive negative comments regarding the Lewin construct is not known.

Utility of Lewin Construct. Considering the sample group surveyed at AFIT as representative of the entire USAF officer corps, it appears likely that the Lewin format could be used in a future survey with reasonably good results. The overall return rate of seventy-eight percent was undoubtedly influenced by the proximity of the group surveyed to the writer, and the fact that a certain empathy among AFIT students does exist. Taking these factors into account, it still appears feasible that the construct can be satisfactorily used. The

greatest strength seems to be the possibility of obtaining better feedback by encouraging commitment on an issue, while the greatest weakness may be a reluctance on the part of some to respond to a survey not structured in a conventional way.

Weighing the strengths and weaknesses of the Lewin construct, the writer concludes that this approach is workable. However, extreme care must be exercised to make the construct as simple and direct as possible.

Survey Data Results

The following sections present the statistical findings of the research. Complete tabulations of the answers are located in Appendix C. The data analysis is divided into four components - demographics, factors influencing the overall impact of the new OER system on the officer corps, comparison of AFMIG responses obtained in this survey to those obtained earlier, and finally, a comparison of selected responses obtained in Section II of this survey (AFMIG questions) with responses to similar questions in Section III (Lewin - OER questions). From these analytical comparisons and summaries, a much clearer picture emerges of the impact which the new OER system has had on the officer corps, and the extent of this influence on related Air Force "quality of life" issues.

Demographics

Several key assumptions were made with regard to the AFIT sample population. These included the expectation that the sample was composed primarily of company grade officers, that these officers were

Table I. Demographic Information

<u>Grade</u>	<u>Number</u>	<u>Percentage</u>
Lieutenant	13	8.1
Captain	135	84.4
Major	10	6.3
Lt. Colonel	2	1.3

Career Intentions

Definite Career Intentions	76	47.5
Likely Career Intentions	67	41.9
Undecided	14	8.8
Likely Not Career Intentions	2	1.3
Definitely Not Career Intentions	1	.6

Aeronautical Rating

Pilot	73	45.6
Navigator	17	10.6
Non-rated	70	43.8

Time In Grade

Less Than 2 Years	47	29.4
2-4 Years	46	28.8
4-6 Years	39	24.4
More Than 6 Years	28	17.5

Evaluation Under New OER

Received "1"	37	23.1
Received "2"	37	23.1
Received "3"	31	19.3
Uncontrolled Reports	3	1.9
Not Yet Evaluated	50	31.2
No Response	2	1.3

mostly USAF career oriented, and that they had come to AFIT from a wide variety of previous assignments and experiences. The validity of these assumptions was justified as evidenced in the data in Table I. Over ninety percent of the officers surveyed were of company grade, almost ninety percent were definitely or likely going to make the Air Force a career, and twenty different Air Force Specialty Codes (AFSCs) were represented. Approximately fifty-seven percent had less than four years in current grade.

One hundred eight of the sample group had been evaluated under the new OER system. Of this total, 37 had received "ones," 37 had received "twos," and 31 had received "threes." Three individuals had received an uncontrolled report. The remainder of the sample group had received no evaluation under the new system or declined to answer these questions. Therefore, an expected bias of the sample was a rather favorable impression of the new OER system.

Factors Influencing Opinion of the OER System

As discussed earlier, Section III of the questionnaire probed officer reactions to the new OER system. Responses to these questions were analyzed in the following manner:

- (1) A frequency analysis of all responses was made which included standard statistical measures such as the mean.
- (2) Multiple regression analysis was used to determine which factors were most influential in explaining the overall opinion of the impact of the new OER system on the functioning and morale of the officer corps.

These analyses were performed for the entire sample group and then for each of the groups listed below.

- (1) Those who had not been evaluated under the new OER system.
- (2) Those who had been evaluated.
- (3) Those who received a "one" from the reviewing official.
- (4) Those who received a "two" from the reviewing official.
- (5) Those who received a "three" from the reviewing official.

This provided a basis for comparing responses of those who received a "one" or "two" under the new system to those who received a "three." It also allowed comparisons of those who have been evaluated under the new system to those who have not. From these comparisons, it was anticipated that significant patterns or trends in answers would be highlighted.

Effects on Career Planning

The first issue addressed was the effect of the new OER system on officer career planning. This was Question 35 of the questionnaire for which overall results are found on Page 123 of Appendix C. Table II summarizes the results. Eighty-six percent of the survey respondents believed the new OER did impact career planning. When asked for opinion on specific effects generated by the system, a majority (52 percent) of officers felt that a better estimate of an individual's promotion possibilities now existed. This response was especially prevalent among those who had been rated under the new system, as 62 officers (60 percent) of this group believed this to be so. This effect - the ability to estimate promotability - was perceived by the sample group as the most positive aspect of the new OER as attested by the mean score of 4.16 on a seven point scale.

Another career planning issue addressed was the effect of the new OER on personal goal achievement. A substantial segment of the sample group, 68 officers, (42 percent) believed that personal goal achievement was adversely affected while 65 officers answered neutrally. Only 12 percent believed personal goal achievement was enhanced. Even among those who received a "one" under the new system, only 19 percent responded that opportunities for personal goal achievement was enhanced. The overall mean score of 3.39 was one of the more negative attitudes expressed.

Table II. Summary of Career Planning Effects

	<u>ALL</u>	<u>NOT</u>	<u>EVAL</u>	<u>1s</u>	<u>2s</u>	<u>3s</u>
New OER Affects Career Planning	137	X	X	X	X	X
New OER Does Not Affect Career Planning	15	X	X	X	X	X
No Answer	8	X	X	X	X	X
Allows Better Estimate of Promotion Potential	79	18	62	24	22	14
Neutral	30	14	14	4	5	5
Inhibits Estimate of Promotion Potential	43	15	28	9	9	9
No Answer	8	3	4	0	1	3
Mean Score	4.16	3.76	4.37	4.54	4.48	3.99
Enhances Opportunities for Personal Goal Achievement	19	3	16	7	5	3
Neutral	65	22	43	14	14	15
Adversely Affects Personal Goal Achievement	68	22	45	16	17	10
No Answer	8	3	4	0	1	3
Mean Score	3.39	3.19	3.48	3.59	3.45	3.40

Effect on Job and Mission Performance. The next area investigated was the new OER effects on job and mission performance. This was Question 36 of the survey. Overall results are on Page 124-25 of Appendix C. Eighty percent of the respondents felt the new system impacted some aspect of this area. In this regard, four specific effects were investigated. These were job performance rewards, group performance effects, individual motivation, and finally, effects on individual creativity and thought to accomplish organizational objectives. Summarized results of the survey are presented in Table III.

For the first factor, job performance rewards, some interesting results were obtained. The overall response was primarily negative, with 65 respondents (43 percent) believing that job performance and the rating received were not directly related. Only 33 percent of the respondents believed that job performance was more clearly rewarded under the new system. However, among those who had received a rating of "one," a much more positive opinion was expressed. Seventeen respondents (46 percent) of this group believed that job performance was more clearly rewarded, while only twelve respondents (32 percent) believed it was not. The mean score for this group was 4.15. For those who received a "three," the findings were essentially reversed. Eight officers believed that job performance was more clearly rewarded, while thirteen officers believed it was not. The mean score was 3.46. Those who received a "two" were split in their attitudes. Thirteen expressed a positive position, while fourteen responded negatively. Therefore, it appears that opinion regarding job performance rewards is influenced by the rating received under the new system. Those who have fared well think job performance is more clearly rewarded while those who have not fared as well believe the opposite to be true.

Table III. Summary of Job/Mission Performance Effects

	ALL	NOT	EVAL	1s	2s	3s
New OER Affects Job/Mission Performance	128	X	X	X	X	X
New OER Does Not Affect Job/Mission Performance	22	X	X	X	X	X
No Answer	10	X	X	X	X	X
Job Performance More Clearly Rewarded	50	10	40	17	13	8
Neutral	35	12	23	8	8	7
Job Performance Not Rewarded	65	24	40	12	14	13
No Answer	10	4	5	0	2	3
Mean Score	3.69	3.39	3.85	4.15	3.80	3.46
Increased Competition Leads to Better Group Performance	31	10	20	11	8	1
Neutral	48	11	37	12	10	13
Increased Competition Leads to Poorer Group Performance	71	25	46	14	17	14
No Answer	10	4	5	0	2	3
Mean Score	3.31	3.17	3.38	3.64	3.43	2.99
Officers More Motivated to Achieve	51	15	35	17	11	7
Neutral	39	13	26	8	11	7
Officers Less Motivated to Achieve	60	18	42	12	13	14
No Answer	10	4	5	0	2	3
Mean Score	3.68	3.58	3.68	4.05	3.81	3.23
Encourages Ind. Thought/Creativity in Problem Solving	39	9	30	14	7	7
Neutral	56	15	40	12	15	12
Discourages Ind. Thought/Creativity in Problem Solving	55	22	33	11	13	9
No Answer	10	4	5	0	2	3
Mean Score	3.53	3.22	3.72	3.91	3.56	3.56

The second factor explored in the job and mission performance area was the effect of increased competition for OER ratings on group performance. Would the increased competition lead to better or worse group performance? Seventy-one officers (47 percent) responded that group performance would be adversely affected. Only 31 officers (21 percent) believed that better group performance would result. This negative opinion was held by all the groups examined. Those who had a "one" responded the most favorably, but still regarded worse group performance as the likely outcome. The mean score for this group was 3.64. Those who received a "three" were very negative in their outlook as evidenced by the mean score of 2.99. In fact, only one individual who had gotten a "three" believed that the new OER system led to better group performance.

The third factor addressed in this section concerned individual motivation to try to do an exceptional job. Overall, 51 respondents (34 percent) of the sample believed motivation had increased, while 60 respondents (40 percent) believed that motivation had decreased. Again, perceptions on this issue were highly influenced by the rating one had received. Seventeen of the "ones" believed that motivation had increased, while only twelve believed it had decreased. Mean score for this group was 4.05. Those who had received a "two" were almost evenly split in their opinions. Eleven responded positively, while thirteen responded negatively. Those who had received a "three" expressed the most negative opinions, as twice the number responded negatively to the question as responded positively. Mean score for this group was 3.23.

Last of the four factors investigated in the job and mission performance area was the effect on individual thought and creativity.

For the entire sample, only 39 officers believed that creativity to solve problems was encouraged under the new system, while 55 officers believed the opposite to be true. However, among those who had been evaluated under the new system, a more positive attitude was expressed. An almost identical number responded positively as responded negatively. In fact among the "ones," fourteen officers felt that individual thought and creativity were encouraged, while only eleven believed it was not. Those who had received "twos" or "threes" responded slightly less favorably.

Effect on Fairness of Evaluations. Certainly one area of prime concern to all officers centers on whether they perceive that the new OER system is fair and objective. As a result, four aspects of "fairness" were investigated in Question 37 of the survey. These included ability of the Rater, Additional Rater, and Reviewer to competently evaluate an individual, the ability to meaningfully compare officer performances within an organization, the zero-sum aspects of the system, and finally, the ability of the system to adjust for exceptional circumstances such as SPECAT assignments. Complete results of the responses are found on Page 126-27 of Appendix C. As shown in Table IV, 89 percent of the survey respondents believed that fairness was an issue. This was the largest percentage tabulated for any of the four major areas of inquiry.

The first question in this area investigated the perceptions of officers regarding the Rater - Additional rater - Reviewer cycle. Did these individuals make their decisions on the basis of specific information and expectations or did they perform this function in a less objective fashion? The consensus indicated that nearly 72 officers believe that factors such as not knowing the ratee, having too many OERs to evaluate, or being too busy bias the evaluations. This opinion was shared by all

Table IV. Summary of Effects on Fairness

	<u>ALL</u>	<u>NOT EVAL</u>	<u>EVAL</u>	<u>1s</u>	<u>2s</u>	<u>3s</u>
Fairness of Evaluations Affected by New OER	142	X	X	X	X	X
Fairness of Evaluations Not Affected	11	X	X	X	X	X
No Answer	7	X	X	X	X	X
Rater/Reviewer Base Evaluation on Specific Criteria	54	17	36	14	11	10
Neutral	27	7	20	7	5	8
Rater/Reviewer Do Not Base Evaluation on Criteria	72	22	50	16	21	11
No Answer	7	4	2	0	0	2
Mean Score	3.62	3.51	3.65	3.90	3.48	3.64
Meaningful Comparison of Officer Performance	27	8	19	11	6	2
Neutral	26	11	15	7	4	3
Officer Comparison Based on Other Factors	100	27	72	19	27	24
No Answer	7	4	2	0	0	2
Mean Score	2.90	2.88	2.91	3.42	2.87	2.32
Officers Have Equal Chance of High Rating	32	11	21	9	9	3
Neutral	39	13	25	5	8	10
Officers Do Not Have Equal Chance of High Rating	82	22	60	23	20	16
No Answer	7	5	2	0	0	2
Mean Score	3.29	3.43	3.23	3.23	3.29	3.11
System Adaptable to Various Circumstances	20	6	14	4	5	4
Neutral	23	9	14	5	6	3
Some Assignments May Penalize Individual	110	31	78	28	26	22
No Answer	7	4	2	0	0	2
Mean Score	2.68	2.61	2.74	2.55	2.81	2.78

groups in the sample. Those who had been evaluated were slightly more favorably impressed than those who had not (mean score 3.65 versus 3.51). As before, those who had received a "one" were the most favorably impressed as indicated by the mean score of 3.90. An anomaly did occur among the "twos" and "threes" on this question. The mean score for the "twos" was 3.48 while that of the "threes" was slightly less negative - 3.64.

The ability of the system to meaningfully compare officers within an organization was also condemned by a majority of all the groups. Overall, 100 officers (65 percent) believed that comparisons were influenced by other factors such as primary promotion zone considerations. Among those evaluated under the system, the feeling was even stronger as 72 respondents (68 percent) believed this to be so. Among the "ones", 19 officers agreed with this viewpoint, among the "twos" 27 officers (73 percent) agreed, while among the "threes" an overwhelming 24 officers (83 percent) concurred with this assessment.

The overall mean of 2.90 was the second most negative response attained. The mean score for those who received a "three" was 2.32 - the most negative response for this group for any of the questions.

The zero-sum aspect of the new OER was the next topic of investigation. It should be recalled that Thompson and Dalton concluded in their study of such a system, that it proved demotivating and adversely affected employee morale and self-esteem. Respondents in this case were asked their opinion of whether all officers had equal opportunity to achieve high ratings or whether the forced distribution of one high rating being balanced by a low rating (relatively) was unfair. The responses to this question were quite interesting. Overall, the mean score was 3.29 which turned out to be the fourth most negative aspect of the new OER. However,

for the first time in the research, the group which had been evaluated under the new system responded more negatively than the group which had not been evaluated (mean score 3.23 versus 3.43). Of even more interest, there was no appreciable difference in the mean scores for each of the groups which had received an evaluation. For the "ones" the mean score was 3.23, for the "twos" 3.29, for the "threes", 3.11. As a result, it can be concluded that most officers perceive the zero-sum aspect of the system to be unfavorable.

An even more unfavorable finding was disclosed by the reaction to the question of flexibility of the system with regard to various circumstances such as SPECAT assignments. The overall mean for this question of 2.68 was the most unfavorable reaction elicited. One hundred ten (72 percent) of the officers surveyed believed that those in certain high-level or special assignments would be penalized under the new system. Of interest was the fact that 28 officers (76 percent) of the "ones" believed this to be the case. In fact the mean score for the "ones" of 2.55 was more negative than that for either the "twos" or "threes". Perhaps this indicates a reluctance on the part of those who are currently "on top" to risk that rating in a more competitive environment.

Effect on Air Force Personnel Actions. The last area investigated about the new OER system was its effect on Air Force Personnel actions. This was addressed in Question 38 of the survey and overall responses are located on Pages 128-29 of Appendix C. Almost 88 percent of those who responded believed the new system had an impact in this area. As summarized in Table V, two dimensions of this area were also investigated. These were the effect of the new OER on promotion board actions and the

Table V. Summary of Effects on Air Force Personnel Actions

	<u>ALL</u>	<u>NOT</u>	<u>EVAL</u>	<u>1s</u>	<u>2s</u>	<u>3s</u>
New OER Affects AF Personnel Actions	140	X	X	X	X	X
New OER Does Not Affect Personnel Actions	12	X	X	X	X	X
No Answer	8	X	X	X	X	X
Promotion Boards Can Better Distinguish Among Officers	60	16	44	19	16	9
Neutral	19	8	11	3	5	2
Promotion Boards Less Able to Distinguish	73	22	50	15	15	18
No Answer	8	4	3	0	1	2
Mean Score	3.72	3.56	3.77	4.02	4.01	3.24
System Encourages Initiatives for Seeking Challenging Assignments	35	9	26	10	8	8
Neutral	25	12	13	2	7	4
System Discourages Initiatives	92	25	66	25	21	17
No Answer	8	4	3	0	1	2
Mean Score	3.25	3.07	3.29	3.22	3.45	3.34

effect on officer initiatives to seek more challenging and rewarding assignments.

The validity of using OER scores as a primary means to select individuals for promotion was challenged by a number of officers. Overall, 73 officers (48 percent) of the respondents believed that the forced distribution of OER scores may not be valid for identifying potential promotees. A substantial part of this group consisted of those who had received a "three". This compared to a total of 60 officers (40 percent) who believed that promotion boards now had a better means for selecting potential promotees. Many of the officers in this group had received "ones" or "twos". These results seem to indicate that those who have fared well under the new system believe that promotion boards should rely heavily on OER scores. Those who received a "three" seemed to be expressing the opinion that promotion boards should not rely primarily upon OER score to determine promotees.

The final factor investigated was the effect of the new OER system on officer initiatives to seek challenging and rewarding assignments. This question was closely related to an earlier one assessing the OER system's ability to adapt to different assignment levels and categories. The results obtained were also similar to the earlier question. Twenty-five officers (68 percent of the "ones") believed that such officer initiatives are inhibited under the new system. Twenty-one officers (58 percent) of the "twos" and 17 officers (58 percent) of the "threes" responded likewise. Again, it appears that the officers who had received "ones" considered a high rating jeopardized by actively seeking more responsible and challenging positions. The "twos" and "threes" with less to lose were more willing to seek such assignments.

Summary of OER Factor Results. The results tabulated in this segment of the questionnaire revealed several findings. First, of the twelve factors which were analyzed, eleven had mean scores which corresponded to a somewhat negative perception. The most negative factors cited were the inability of the system to adequately compensate for different circumstances, such as level of assignment, and the system's inability to fairly and objectively compare officers in an organization. The only favorable factor was the ability of an officer to better estimate his promotion potential.

Some other findings were also apparent. Those who had been evaluated under the new system were generally more favorably inclined than those who had not been evaluated. One reason for this could be a lessening of uncertainty or apprehension once an individual has been rated. Another possibility could be that the majority of those sampled in the survey had fared well under the new system, (ones or twos) and therefore, believed the system was not as bad as it had seemed before being evaluated. However, it must be noted that those who had been rated still had a rather negative attitude.

One final finding of this section must be noted. It appears that the score an individual receives on his OER strongly influences his perceptions of the system. Those most negatively impressed were "threes"; those most favorably impressed were "ones". On only two questions, both investigating the effect on high level or more demanding assignments, did the "ones" indicate a more negative opinion than the others. The most plausible reason for this occurrence is probably a feeling that a "one" rating would be jeopardized in such circumstances.

Impact of the New OER on Functioning and Morale

One final question in this area concerned the impact of the new OER system on the functioning and morale of the officer corps. This was

Table VI. Impact of the New OER on Functioning and Morale

	<u>ALL</u>	<u>NOT</u>	<u>EVAL</u>	<u>EVAL</u>	<u>1s</u>	<u>2s</u>	<u>3s</u>
Favorable	17	2	15	9	4	2	
Neutral	27	8	18	3	7	8	
Unfavorable	113	38	75	25	26	21	
No Answer	3	2	4	0	0	0	
Mean Score	2.95	2.79	3.01	3.27	3.00	2.84	

Question 43 of the survey Was the impact favorable or unfavorable?

Table VI shows that the predominant response was unfavorable. Following the pattern established earlier, the "threes" expressed the most negative opinion. However, it should be noted that all groups expressed a negative opinion. Even 25 of the 37 "ones" believed the impact to be negative.

Multiple Regression Analysis of Factors Most Influencing Overall Impact of the New OER

This section of the analysis relates the overall opinion of the new OER system to the twelve factors discussed earlier. The SPSS multiple regression analysis program was utilized to obtain the results in Table VII.

To perform the analysis, the overall opinion of the new OER was used as the dependent variable, while the twelve factors were used as the predictor list. For the entire sample, 148 valid cases were analyzed. Any cases which had missing data were excluded from computation.

Multiple Regression - All Cases. At the .05 significance level, six of the twelve factors were included in the regression equation. These were:

- (1) Job performance rewards
- (2) Ability of OER system to meaningfully compare officer performances
- (3) OER system effect on officer initiative to seek challenging and rewarding assignments
- (4) Effect of increased competition on group performance
- (5) Effect on motivation of officers
- (6) Validity of OER score as a determinant of promotability

Thus, the regression equation is:

Overall OER Opinion = .200 + .124 Job Performance Rewards + .134 Meaningful Comparison + .142 Officer Initiatives + .136 Competition + .145 Motivation + .117 Validity of OER Score

This equation yields a total R square of .546.

Multiple Regression - Not Evaluated. For this group only one factor was determined to be significant - job performance rewards. Therefore,

Table VII. Summary of Multiple Regression Analysis Results

Variables	F	Sig	Mult R	R Sq	R Sq Change
ALL - 148 Cases					
1. Job Performance Rvds	65.86	.000	.557	.311	.311
2. Meaningful Comparison	27.84	.000	.649	.422	.111
3. Initiative for Assignments	13.05	.000	.685	.469	.047
4. Competition	10.20	.002	.711	.505	.036
5. Motivation	6.78	.010	.726	.528	.023
6. Promotion Board Utility	5.73	.018	.739	.546	.018
NOT EVAL - 45 Cases					
1. Job Performance Rvds	33.84	.000	.664	.440	.440
EVAL - 102 Cases					
1. Meaningful Comparison	57.17	.000	.603	.363	.363
2. Initiative for Assignments	21.35	.000	.690	.476	.113
3. Competition	18.28	.000	.748	.559	.083
4. Promotion Board Utility	8.26	.005	.770	.594	.035
5. Motivation	4.76	.032	.783	.613	.019
1s - 37 Cases					
1. Competition	25.43	.000	.649	.421	.421
2. Initiative	16.79	.000	.782	.612	.191
3. Promotion Board Utility	6.08	.019	.820	.673	.061
2s - 35 Cases					
1. Meaningful Comparison	23.80	.000	.647	.419	.419
2. Promotion Board Utility	15.36	.000	.779	.607	.188
3s - 27 Cases					
1. Initiative for Assignments	29.25	.000	.734	.539	.539
2. Personal Goal Achievement	8.49	.008	.804	.646	.107
3. Competition	7.32	.012	.861	.742	.096

44 percent of the regression equation can be attributed to this lone variable. The regression equation is:

Overall OER Opinion = 1.32 + .431 Job Performance Rewards

Multiple Regression-Evaluated. Five factors were considered statistically significant for this group. They were the same as the factors determined for the entire sample except for job performance rewards which was not statistically significant. A total R square of .613 was attributed to this equation:

Overall OER Opinion = .098 + .178 Meaningful Comparison + .201 Officer Initiatives + .186 Competition + .157 Validity of OER Score + .135 Motivation

Multiple Regression - Evaluation of "One". For the group of officers who received "ones" on OER evaluations, three factors - competition, officer initiatives, and OER score validity - were most influential. Total R square for these factors was .673.

Overall OER Opinion = .250 + .358 Competition + .289 Officer Initiatives + .196 OER Score Validity

Multiple Regression - Evaluation of "Two". Two factors were statistically significant for those who received a "two" on their OER. R square for the equation was .607.

Overall OER Opinion = .755 + .370 Meaningful Comparison + .300 OER Score Validity

Multiple Regression - Evaluation of "Three". Among those who received a "three", three factors were most influential. These were officer initiatives, personal goal achievement, and competition. The

equation had a very high R square of .742.

Overall OER Opinion = - .957 + .431 Officer Initiatives + .352 Personal Goal Achievement + .356 Competition.

Summary of Multiple Regression Results. From these results, a sharp distinction is apparent from those who had been evaluated under the new system from those who had not been evaluated. Job performance rewards was the only significant factor for those not evaluated.

For those evaluated, the performance reward factor was not statistically significant. The ability of the new OER system to provide a meaningful comparison of officer performance was considered the most influential factor in determining an overall opinion of the OER system. This same factor had the second most negative mean response from the survey group. Another influential factor was the system's effect on officer initiatives to seek challenging and rewarding assignments. Again, this factor was considered a drawback of the OER system by all groups in the earlier analysis. The third most influential factor - increased competition effects on group performance - also was considered unfavorable. The fourth factor considered statistically significant by those who had received an evaluation was utility of using the OER score as a primary determinant of promotability. It is interesting to note that this particular factor was considered significant by those who received a "one" or "two", but not by those who received a "three". In the earlier analysis, it was determined that the "ones" and "twos" considered this factor a moderately favorable feature of the new system, while the "threes" considered it highly unfavorable. Again, it appears as if the "ones" and "twos", having fared well under the current system wish to emphasize

those aspects in which their success can be visibly demonstrated. The final factor considered significant for those who were evaluated was motivation. Although not statistically significant for any sub-group, it was enough of a factor in each to be significant for the whole group. Here, attitudes corresponded closely to score received on the OER.

Summary of Frequency and Regression Analyses

From the preceding discussion, it is apparent that the majority of the sample group have reservations or disagreements with the OER system. Eleven of twelve measures concerning the OER received negative or unfavorable responses. The impact on the functioning and morale of the entire officer corps was considered unfavorable.

Another observation was the trend to respond to a question according to the score received on the OER. It was noted that the "threes" had a much more negative viewpoint than the "ones" or "twos". The result, if this trend continued, might have some serious repercussions. Perhaps some comments from those who were surveyed can give a clearer picture.

. . . the information (concerning the new OER) never seems to get high enough to do any good, and when it does, those "up there" never have guts enough to make necessary changes. -- A "three"

The system emphasizes "showcase work" at the expense of solid performance in order to get a good OER. -- A "two"

With modifications to the control process, the new OER might be made a fairer and more meaningful factor in the career planning and promotion process. -- A "one"

The front side (of the OER) is great, the back side is gross! -- A "three"

These comments seem to reflect a general disenchantment with the new system. However, some aspects of the OER were considered an improvement over the old system. A sampling of some comments illustrates this point.

The new system clearly outlines Air Force expectations and aids in setting personal performance goals.

(The OER) provides better feedback for making future career decisions.

In balance, more negative comments were received than positive comments. But several respondents preferred to reserve judgement on the eventual worth of the system. Several indicated that some revisions (especially concerning the rigid quota) would change their opinion. Others felt that the system would "work itself out in the long run". Therefore, the writer would conclude that the new OER system is not favorably viewed at the present time, but that this prevailing opinion may change in the future. The question that must now be answered is, has the view of the OER as expressed in the survey had a perceivable impact on the Air Force officer corps level of functioning as represented by "quality of life" issues related to job satisfaction and work environment? To provide an answer to this question, the results of the selected questions from the AFMIG survey are now presented.

AFMIG Quality of Life Issues

This section of the analysis compares present AFIT officer perceptions to past Air Force wide officer perceptions of several job-related quality of life issues. The original survey administered in 1975 sought a measurement of officer opinion in four areas. Particular interest to this research - work and job satisfaction, leadership and supervision satisfaction, equity or equal opportunity satisfaction, and personal

growth opportunities. In each of these categories, an appropriate definition of the term was supplied. Each respondent was then asked the importance of each concept to him and the degree to which he was satisfied with that concept in his Air Force career.

To make the comparison as valid as possible, all AFIT respondents were instructed to answer on the basis of previous job assignment. In addition, both the AFIT sample group and the original Air Force group were sorted in accordance with two criteria. For the purposes of this thesis, the only responses analyzed were from officers in the grade of captain who had expressed either a definite or likely intent to remain in the Air Force. This requirement limited total AFIT sample size to 121, and the weighted Air Force sample to 2809-2847. This fluctuation in the latter resulted from invalid or missing data to some questions.

The method of analysis was mean score comparison. The questions were structured on a Likert-type scale. The numerical values for the questions varied, however, so a straight comparison of raw numerical scores is meaningless. To aid in understanding what the mean score for the questions indicate, Tables VII-XI include an "interpretation" column.

All questions were taken verbatim from the original AFMIG survey. By comparing mean scores, a method was provided for making some judgments regarding the opinions of the AFIT sample vis-a-vis the earlier Air Force sample. In this way the final link of the Lewin conceptual model - organizational level of functioning - was determined.

Job and Work Factors. Each respondent was presented the following definition.

WORK: Doing work that is personally meaningful and important; pride in your work; job satisfaction; recognition for my efforts and my accomplishments on the job.

Table VIII. Comparison of Job and Work Factors
(Capts With Career Intent)

Air Force (Mar 75)		AFIT (Aug-Sep 76)
	Mean Score	Mean Score
1. Importance of Work	6.72	6.52
2. Work Satisfaction	4.81	5.01
3. Greater Job Responsibility	4.66	4.55
4. Amount Time Satisfied	3.26	3.11
5. How Well Like Job	5.21	5.17
6. Willingness to Change Job	4.72	4.55
7. Compare With Others	3.31	3.34
8. Most Essential Factor for Satisfying Job		
a) Achievement	47.4%	55.8%
b) Challenging	18.4%	12.5%
c) Use Initiative	9.1%	9.2%
d) Recognition	8.5%	7.5%
e) Responsibility	7.9%	6.7%
f) Good Supervisor	4.3%	4.2%
g) Other	4.2%	4.2%

Eight questions were then asked about this concept. These were:

- (1) What degree of importance do you attach to the above?
- (2) To what degree are you satisfied with the WORK aspects of your current life?
- (3) Do you want a job which has greater responsibility than your current job?
- (4) How much of the time are you satisfied with your current job?
- (5) How well do you like your job?
- (6) How do you feel about changing your job?
- (7) How do you like your job compared with other people?
- (8) What factor do you consider most essential for having a satisfying job?

As can be seen from the summarized results in Table VIII, the AFIT and Air Force wide results did not markedly differ for any of the questions. Both samples appear to be moderately satisfied with their job and work environment. Even when asked for the most essential factor in having a satisfying job, the two groups exhibited a high degree of similarity in response. A Sense of Achievement was selected by a majority of both sample groups as the most essential factor.

Leadership-Supervision Factors. Each respondent was presented this definition.

LEADERSHIP/SUPERVISION: Has my interests and that of the Air Force at heart; keeps me informed; approachable and helpful rather than critical; good knowledge of the job.

Following the definition, these questions were asked:

- (1) What degree of importance do you attach to the above?
- (2) To what degree are you satisfied with the LEADERSHIP-SUPERVISION aspects of your current life?
- (3) What is your opinion of quality of leadership in the Air Force?
- (4) What kind of influence does your immediate supervisor have on your organization?
- (5) Are you given the freedom to do your job well?
- (6) Are you given recognition for a job well done?

Table IX summarizes the results. No great disparity between the two groups was evident. Leadership and Supervision were viewed as important

Table IX. Comparison of Leadership-Supervision Factors
(Capts With Career Intent)

	<u>Air Force (Mar 75)</u>		<u>AFIT (Aug-Sep 76)</u>	
	<u>Mean Score</u>	<u>Interpretation</u>	<u>Mean Score</u>	
1. Importance of Leadership-Supervision	6.36	(High Importance)	6.18	
2. Leadership-Supervision Satisfaction	4.36	(Moderately Satisfied)	4.51	
3. Quality of AF Leadership	2.81	(Slightly Above Average)	2.89	
4. Supervisory Influence	2.45	(Moderately Favorable)	2.50	
5. Job Freedom	3.83	(Often)	3.84	
6. Supervisor Recognition for Job Well Done	3.38	(Sometimes-Frequently)	3.51	

and both groups were moderately satisfied with this dimension of Air Force life. Freedom to do an effective job was viewed as adequate. Finally, in most cases, supervisors recognized work that was well done.

Equity Factors. The definition for EQUITY:

EQUITY: Equal opportunity in the Air Force; a fair chance at promotion; an even break in my job/assignment selections.

Questions contained in this section included:

- (1) What degree of importance do you attach to the above?
- (2) To what degree are you satisfied with the EQUITY aspects of your current life?
- (3) Would you rather work for a military or civilian supervisor?
- (4) Would you rather work with military or civilian co-workers?
- (5) Can an individual get more of an even break in civilian life than in the Air Force?
- (6) Are there more favorable features about the Air Force as a place to live and work than unfavorable ones?

Table X provides the results from these questions. Once again, mean responses were very similar for the two sample groups. Both groups exhibited essentially the same opinion on each question except for the last. In this instance, 61 percent of the AFIT group answered affirmatively compared to 80 percent of the Air Force group. Another 35 percent of the AFIT group were undecided while only 16 percent of the Air Force group were undecided. From these results and several additional comments received, a prevailing attitude of, "The Air Force is still a pretty good place to live and work, but some problems, if not solved could cause me to change my mind." Among irritants listed were:

- (1) Erosion of benefits by Congress (8 replies)
- (2) Too many changes-of-station (6 replies)
- (3) Air Force "up or out" policy or Air Force personnel system (3 replies)

Those who listed the last irritant did not directly attribute the new OER system as the basis of the reply. It is unknown if that was the actual basis.

Table X. Comparison of Equity Factors
(Capts With Career Intent)

	<u>Air Force (Mar 75)</u>		<u>AFIT (Aug-Sep 76)</u>	
	<u>Mean Score</u>	<u>Interpretation</u>	<u>Mean Score</u>	
1. Importance of Equity	6.56	(High Importance)	6.23	
2. Equity Satisfaction	4.68	(Moderate Satisfaction)	4.72	
3. Rather Work for Military or Civilian Supervisor	1.81	(Probably Military)	1.84	
4. Rather Work with Military or Civilian Co-Workers	3.57	(Probably Military)	3.70	
5. More of Even Break in Civilian Than Military Life	2.55	(Slightly Disagree)	2.55	
6. More Favorable Features in Air Force	2278 (80%)	(Yes)	74 (61%)	
	360 (16%)	(Undecided)	42 (35%)	
	89 (4%)	(No)	5 (4%)	

Personal Growth Opportunities. Personal Growth was defined as:

PERSONAL GROWTH: To be able to develop individual capacities; education, training; making full use of my abilities; the chance to further my potential.

Questions related to that concept included:

- (1) What degree of importance do you attach to the above?
- (2) To what degree are you satisfied with the PERSONAL GROWTH aspects of your current life?
- (3) How often are you given feedback from your supervisor about your job performance?
- (4) How often do you and your supervisor get together to set your personal performance goals?

Table XI shows a strong similarity in responses. The AFIT group was slightly more satisfied with Personal Growth aspects than the Air Force group. Perhaps this can be attributed to the fact that the AFIT group is currently engaged in further academic endeavors. One rather disturbing finding was that the frequency of supervisor-subordinate contact to establish performance standards remained low. With the new OER system placing emphasis on meeting specified job standards, it would seem appropriate for the contact between supervisor and subordinate to increase.

Summary of AFMIG Results. In each of the four areas investigated, the responses of the AFIT sample were very similar to the earlier Air Force-wide group. Both groups exhibited a general satisfaction with work and job related issues. From the results, a determination of functioning and morale for the AFIT group can be made.

Organizational Level of Functioning. In Chapter 4, the fundamentals of the Lewin Theory of Organization Change were presented. An integral part of this theory maintained that each organization has a certain

TABLE XI. COMPARISON OF PERSONAL GROWTH FACTORS
(Capts With Career Intent)

<u>Issue</u>	<u>Air Force Mean Score</u>	<u>Interpretation</u>	<u>AFIT Mean Score</u>
1. Importance of Pers. Growth Opportunities	6.54	(High Importance)	6.15
2. Personal Growth Satisfaction	4.92	(Satisfied)	5.29
3. Feedback on Job Performance	3.03	(Sometimes)	3.21
4. Frequency of Supervisor - Subordinate Meetings to Set Personal Goals	2.12	(Seldom)	2.17

environment or level of functioning which, in turn, affects the members of that organization. When the organization comes into contact with a change agent, new ideas, information, or attitudes may be introduced. This results in one of three alternatives for the organization. The level of functioning is elevated to a more desirable state in terms of morale or satisfaction, moved to a less desirable state, or after integration of the change mechanism, the level of functioning remains at about its previously established level.

Throughout this thesis the new OER system has been viewed as a change agent which has been integrated into the officer corps. In the survey, several questions were designed which sought to assess various dimensions of this change agent. Then, via the AFMIG questions a measure of the officer corps level of functioning - termed functioning and morale - was developed.

On the basis of the information gained from the survey, it is apparent that the organizational level of functioning for the AFIT sample population did not significantly differ from the standard established in the earlier Air Force-wide survey. Therefore, in completing the Lewin model of the process, the conclusion reached is depicted in Figure 6. However, this conclusion should be caveated by the knowledge that this thesis only measured some possible elements of the level of functioning. Other factors not measured may have been interacting simultaneously to keep the level of functioning unchanged.

Comparison of AFMIG/OER Responses

While the organizational level of functioning of the officer corps appears unchanged at the present time, some questions still remain. The

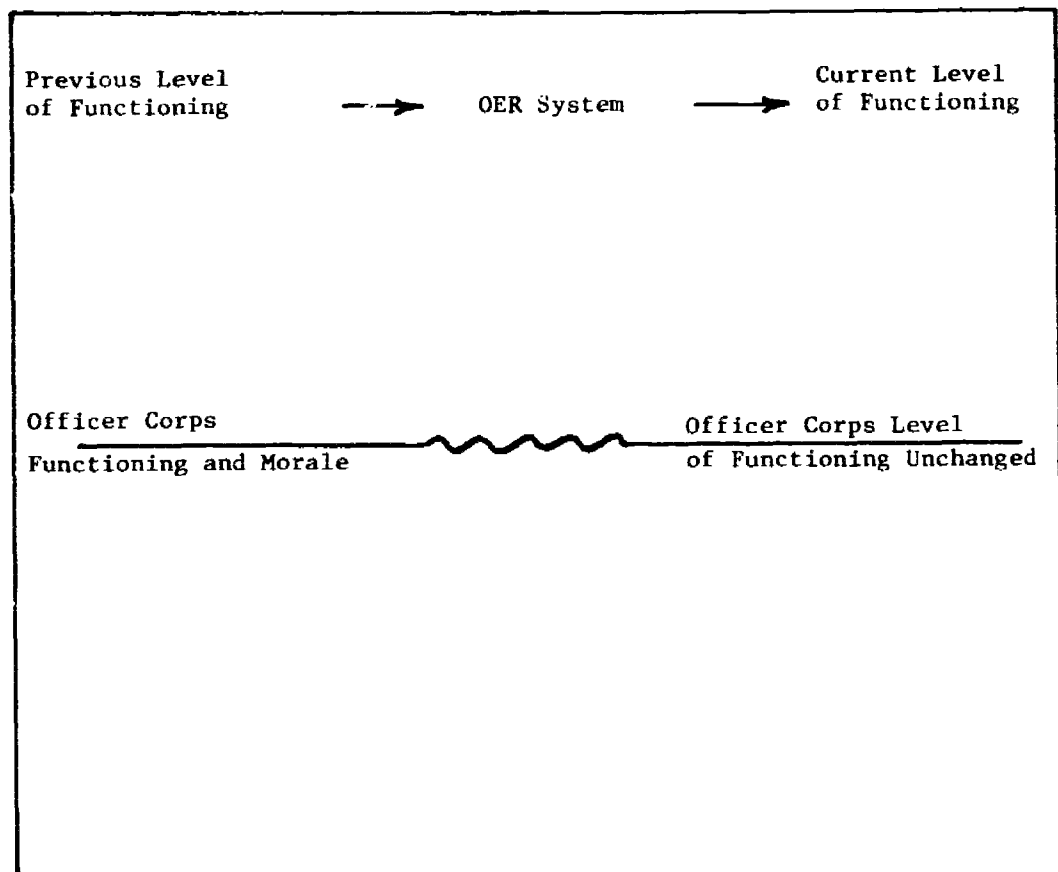


Fig. 6. Lewin Model of Officer Corps Level of Functioning

fact that the new OER system was viewed in somewhat negative terms by the AFIT sample causes the writer to reserve judgment about its ultimate effect on the functioning and morale of the officer corps. As evidence of possible future effects, several of the OER questions were designed to closely parallel some of the AFMIG "quality of life" questions. By comparing responses to those related questions, the influence of the OER system on specific measures of the officer corps level of functioning was determined. Results of this comparison are summarized in Table XII. As can be seen from the table, the AFIT sample was essentially satisfied with the various dimensions probed by the AFMIG questions. However, in each case that a related question investigated the effect of the OER on these dimensions, the effect was unfavorable. These findings were buttressed by responses to questions in the final section of the survey which asked each respondent his opinion of the impact of the new OER system on the WORK, LEADERSHIP-SUPERVISION, EQUITY, and personal growth aspects of Air Force life. In two of the areas, WORK and EQUITY, the new OER was viewed as having an unfavorable impact.

What is the conclusion to be drawn from these results? The most probable explanation in the writer's opinion is that the new OER system, while not measurably altering the officer corps level of functioning at present, continues to exert unfavorable forces upon it. If these trends persist, the ultimate effect of the system may be to shift the officer corps level of functioning at some point in the future to a less desirable state.

TABLE XII. COMPARISON OF AFMIG/OER RESPONSES (LIMITED TO CAPTS WITH CAREER INTENT)

<u>Issue</u>	<u>Result</u>
1. Personal Growth Satisfaction (AFMIG) Effect on Personal Goal Achievement (OER)	Satisfied Moderately Unfavorable
2. Recognition Given for Job Well Done (AFMIG) Effect on Job Performance Rewards (OER)	Most of Time Moderately Unfavorable
3. Given Freedom to do Job Well (AFMIG) Effect on Individual Thought/Creativity (OER)	Most of Time Moderately Unfavorable
4. Want Job with Greater Responsibility (AFMIG) Effect on Officer Initiatives to Seek Challenging and Rewarding Assignments (OER)	Yes Moderately Unfavorable
5. Equity Satisfaction (AFMIG) Officers Have Equal Opportunity to Attain High OER Scores (OER)	Moderately Satisfied Moderately Unfavorable
1. Impact of OER on WORK	Slightly Unfavorable
2. Impact of OER on LEADERSHIP-SUPERVISION	Neutral
3. Impact of OER on EQUITY	Moderately Unfavorable
4. Impact of OER on PERSONAL GROWTH	Neutral

VII. CONCLUSIONS AND RECOMMENDATIONS

In Chapter 1, the two objectives of the research were stated as, (1) to evaluate the utility of using a Lewin "force field" instrument as the basis of a survey questionnaire, and (2) to determine the impact of the new OER system upon the officer corps. This chapter highlights the major findings of the research, derives conclusions from the findings and provides recommendations for future research on this subject area.

Evaluation of Lewin Construct

Chapters 5 and 6 detailed the steps involved in the construction and evaluation of the Lewin construct used in the questionnaire. It was noted that the concept did meet with some resistance, however, the vast majority of respondents considered the technique either (1) essentially the same as a more conventional form, or (2) an improvement. After a review of the comments and criticisms received from both the survey respondents and interviewees, it was determined that the Lewin construct was an acceptable and useful survey technique.

Impact of New OER System

The impact of the new OER system was assessed via a Lewin conceptual model. In this model, the OER was viewed as a change agent which impacted the organizational entity known as the officer corps. The effect of the new OER system was measured in four areas - career planning, job and mission performance, fairness of the system, and Air Force personnel actions. Once the specific effects of the system had been ascertained, the next step was to determine if these effects

had had any perceivable impact on the officer corps level of functioning. The level of functioning was measured via four dimensions-officer satisfaction with - WORK, LEADERSHIP-SUPERVISION, EQUITY, and PERSONAL GROWTH. From the analysis presented in Chapter 6, it was determined that the new OER system was perceived as an unfavorable influence upon several aspects of these dimensions, but at the present time no significant shift in the officer corps level of functioning had occurred. It was noted, however, that if current negative perceptions about the OER persist in the future, the level of functioning may well be shifted.

Specific Findings

From the analysis presented in Chapter 6, several specific findings emerged. These are listed below:

OER Effect Findings. Of the twelve measures of specific effects generated by the new OER system, eleven were negative or unfavorable. The two most unfavorable effects were perceived to be (1) an inability of the system to fairly compensate for officers at different levels of assignments and (2) an inability of the system to provide a meaningful comparison of officers within the same organization. The only positive feature of the new system ascertained by the sample was an earlier estimate of promotion potential.

The full extent of the negative perceptions of the AFIT sample were reflected in the response to Question 46, "Impact of the new OER upon the functioning and morale of the officer corps?" The mean score of 2.95 on a seven point scale represented a clearly unfavorable impact. In addition, the distribution of answers showed an overwhelming majority of responses occurred in the unfavorable range of the scale.

In the multiple regression analysis, it was determined that those who have fared well under the new system (received "one" or "two") were influenced in their perceptions of the overall impact of the new OER by features of the system which tended to separate themselves from those who had received a "three". This was evidenced by the fact that "promotion boards better equipped to distinguish among officers" was statistically significant in the case of the "ones" and "twos", but not for the "threes." Another indication of the rating received influencing opinion of the OER, was obtained via the mean score for all the potential effects investigated. For all responses, except two, the "ones" had a higher score than did the "twos" or "threes". The only cases in which the "ones" did not score higher were questions which addressed effects on seeking high level or more demanding assignments. This results may indicate that the "ones" are aware of the possibility of losing a top block rating in a more competitive environment.

AFMIG - Level of Functioning Findings. As discussed in previous chapters, four dimensions of the officer corps level of functioning were investigated. These AFMIG questions were used as a basis upon which the AFIT sample, after almost two years exposure to the new OER system, could be compared to a sample which had had little contact with the new OER system concerning "quality of life" issues. The comparison of these answers were used as measures of the officer corps level of functioning. The comparison yielded similar results for all questions. Therefore, it was concluded that both samples were relatively satisfied with the "quality of life" issues investigated, and that the officer corps level of functioning remained unchanged. It was also noted that if the unfavorable impact of the OER persists, the level of functioning could ultimately be affected.

Conclusions of Research

Based on the survey results and subsequent analysis, the major conclusions of the research are:

- (1) The Lewin construct is acceptable as a survey technique
- (2) The new OER system has had an unfavorable impact upon the officer corps
- (3) This influence has not, as yet, had a perceivable impact on the officer corps level of functioning

In addition some other conclusions of the research are:

- (1) Those who have fared well under the system ("ones" or "twos") perceive it in less unfavorable terms than those who received a "three". They also tend to emphasize those aspects of the system which separate themselves from the "threes".
- (2) If this trend persists, a situation paralleling that described by Dalton and Thompson may occur. That is, those who are recognized as superior performers continue to do an exceptional job, but those identified as average or marginal performers will become discouraged and be less productive. As a result, general morale could be lowered.

Recommendations of Thesis

Because of the fact that the survey used in this thesis employed a new technique, and also because of the importance of the subject area to every Air Force officer, two recommendations are made:

- (1) The Lewin construct should be further investigated as a survey technique. A possible next step would be to use the technique with a considerably larger sample size.
- (2) Continuing research and analysis concerning the impact of the new OER system is imperative. In view of the findings of this thesis, as well as the findings of Carr, Carey and others, it is probable that the new OER system is still viewed as a "threat" and negative influence to the well being of the officer corps.

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Appendix A
Air Force Form 707
(Officer Effectiveness Report)

OFFICER EFFECTIVENESS REPORT

I. RATEE IDENTIFICATION DATA (Read AFR 34-10 carefully before filling out any item)

1. NAME (Last, First, Middle Initial)	3. SSAN (Include Suffix)		8. PERIOD OF REPORT
2. ORGANIZATION, COMMAND, LOCATION AND PAS CODE	4. PAFSC	5. EAFSC	FROM:
	6. ACTIVE DUTY GRADE		THRU:
	7. PERMANENT GRADE		9. DAYS OF SUPERVISION
			10. REASON FOR REPORT

II. JOB DESCRIPTION 1. DUTY TITLE:

2. UNIQUE DUTIES AND TASKS:

3. TYPE AND LEVEL OF RESPONSIBILITY UNIQUE TO JOB:

III. PERFORMANCE FACTORS

(Specific example of performance required)

	NOT OBSERVED OR NOT RELEVANT	FAR BELOW STANDARD	BELOW STANDARD	MEETS STANDARD	ABOVE STANDARD	WELL ABOVE STANDARD
1. JOB KNOWLEDGE (Depth, currency, breadth) SPECIFIC EXAMPLE:	0					
2. JUDGMENT AND DECISIONS (Consistent, accurate, effective) SPECIFIC EXAMPLE:	0					
3. PLAN AND ORGANIZE WORK (Timely and creative) SPECIFIC EXAMPLE:	0					
4. MANAGEMENT OF RESOURCES (Manpower and material) SPECIFIC EXAMPLE:	0					
5. LEADERSHIP (Initiative, human relations, accept responsibility) SPECIFIC EXAMPLE:	0					
6. ADAPTABILITY TO STRESS (Stable, flexible, dependable) SPECIFIC EXAMPLE:	0					
7. ORAL COMMUNICATION (Clear, concise, confident) SPECIFIC EXAMPLE:	0					
8. WRITTEN COMMUNICATION (Clear, concise, organized) SPECIFIC EXAMPLE:	0					
9. PROFESSIONAL QUALITIES (Attitude, cooperation, bearing) SPECIFIC EXAMPLE:	0					
10. EQUAL OPPORTUNITY PARTICIPATION (Sensitivity and treatment) SPECIFIC EXAMPLE:						

IV. RECOMMENDED ASSIGNMENT INFORMATION

1. STRONGEST QUALIFICATION:
2. SUGGESTED JOB ASSIGNMENT (Indicate AFSC):
3. ORGANIZATION LEVEL (SQ, MG, MAJCON, HQ USAF, Etc.):
4. TIMING:

V. EVALUATION OF POTENTIAL

EVALUATE THIS OFFICER'S POTENTIAL FOR INCREASED GRADE AND RESPONSIBILITY IN COMPARISON WITH CONTEMPORARIES. INDICATE YOUR RATING BY PLACING AN "X" IN THE DESIGNATED SECTION OF APPROPRIATE BLOCK.

--	--	--

RATER ADDN REVR
RATER RATER REVR
LOWEST ←

--	--	--

RATER ADDN REVR
RATER RATER REVR

--	--	--

RATER ADDN REVR
RATER RATER REVR

--	--	--

RATER ADDN REVR
RATER RATER REVR

VI. RATER COMMENTS

COMMENTS ON OVERALL EVALUATION

NAME, GRADE, ORGANIZATION, LOCATION

DUTY TITLE

DATE

SSAN (Include Suffix)

SIGNATURE

VII. ADDITIONAL RATER COMMENTS

COMMENTS ON OVERALL EVALUATION

☐ CONCUR

☐ NONCONCUR

NAME, GRADE, ORGANIZATION, LOCATION

DUTY TITLE

DATE

SSAN (Include Suffix)

SIGNATURE

VIII. REVIEWER COMMENTS

COMMENTS ON OVERALL EVALUATION

☐ CONCUR

☐ NONCONCUR

NAME, GRADE, ORGANIZATION, LOCATION

DUTY TITLE

DATE

SSAN (Include Suffix)

SIGNATURE

Appendix B
Questionnaire

DEPARTMENT OF THE AIR FORCE
AIR FORCE INSTITUTE OF TECHNOLOGY (AFIT)
WRIGHT-PATTERSON AIR FORCE BASE OHIO 45433



REPLY TO: AFIT(EMS)/Capt Blakelock/52549

9 Aug 76

SUBJECT: Questionnaire Concerning Selected Aspects
of Air Force Life (USAF SCN 7T-10)

TO: AFIT Personnel

1. The following questionnaire is part of a thesis effort by one of your fellow students to assess opinions of Air Force personnel on selected aspects of Air Force life. Please take a few minutes from your busy schedule to answer the questions. Completion should take 15-20 minutes. Return the questionnaire in the envelope provided.

2. Responses to this survey will be completely anonymous. My primary interest is in candid and thoughtful feedback from you. Answer the questions on the basis of your experience prior to being assigned to AFIT.

3. As you undoubtedly appreciate, the success of this research is in large measure dependant upon your cooperation. Only with your assistance will meaningful results be obtained. Thank you very much.

Ralph A Blakelock
Ralph A. Blakelock, Capt, USAF
Graduate Student
Department of Systems Management
School of Engineering

1 Atch
Questionnaire

1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 26

Information is provided as required by the Privacy Act of 1974.

E. coli O157:H7

(1) to the U.S. Attorney, District of Columbia, Washington, D.C., for the purpose of obtaining a subpoena for the production of the records of the FBI, and/or

[illegible][illegible]

4. Individualized care plan. The survey is being conducted to collect information to be used in research aimed at improving and providing inputs to the collection of evidence of interest to the individual.

6. For the year, the survey year will be ascertained in accordance with the instructions of the general election program. Results of surveys conducted on the date specified will be included in voting results for the year in which the survey was conducted. Surveys conducted in the year of the election will be included in the results of the election year. Surveys conducted in the year of the election will be included in the results of the election year.

c. Partitioning: λ and μ are entirely imaginary.

6. No adverse action of any kind may be taken against any individual who elects to participate in the program on all of the following conditions:

1. *Chlorophyll a* and *Chlorophyll b* were determined by the method of Arar and Collins (1971).

THIS PAGE IS BEST QUALITY PRACTICABLE
FROM COPY FURNISHED TO DDC

EXHIBIT 1

1. What is the name of the person who is the subject of this report?
 - A. [illegible]
 - B. [illegible]
 - C. [illegible]
 - D. [illegible]
 - E. [illegible]
2. What is the name of the person who is the subject of this report?
 - A. [illegible]
 - B. [illegible]
 - C. [illegible]
 - D. [illegible]
 - E. [illegible]
3. What is the name of the person who is the subject of this report?
 - A. [illegible]
 - B. [illegible]
 - C. [illegible]
 - D. [illegible]
 - E. [illegible]
4. What is the name of the person who is the subject of this report?
 - A. [illegible]
 - B. [illegible]
 - C. [illegible]
 - D. [illegible]
 - E. [illegible]
5. Which one of the following best describes your position toward taking the Air Force a chance?
 - A. [illegible]
 - B. [illegible]
 - C. [illegible]
 - D. [illegible]
 - E. [illegible]
6. What is the name of the person who is the subject of this report?
 - A. [illegible]
 - B. [illegible]
 - C. [illegible]
 - D. [illegible]
 - E. [illegible]
7. What is the name of the person who is the subject of this report?
 - A. [illegible]
 - B. [illegible]
 - C. [illegible]
 - D. [illegible]
 - E. [illegible]

8. How long did it take to get the report?

- A. Less than a year
- B. 1 year to 2 years
- C. 2 years to 3 years
- D. 3 years to 4 years
- E. 4 years or more

9. What is your source of information?

- A. Direct
- B. Indirect
- C. Through a third party
- D. Other

10. What was the source of the information? (The source of the information should be stated in the report.)

- A. ADJ
- B. ADG
- C. ADI
- D. ADJ
- E. ADG
- F. ADI
- G. ADJ
- H. ADG
- I. ADI
- J. ADJ
- K. ADG
- L. ADI
- M. ADJ
- N. ADG
- O. ADI
- P. ADJ
- Q. ADG
- R. ADI
- S. ADJ
- T. ADG
- U. ADI
- V. ADJ
- W. ADG
- X. ADI
- Y. ADJ
- Z. ADG

UNIT 10

INSTRUCTIONS:

This section deals with your work habits and the way you work. Read each work habit carefully and decide if you agree or disagree with it. Write "A" for agree and "D" for disagree in the space provided. You will be asked to explain your answers at the end of the unit.

Remember, your work habits are very important in your career. They will help you to succeed or fail in your job.

1. How often do you check the clock? (A = often, D = never)

A...B...C...D...E...F...G
 Often Sometimes Never

2. How often do you check the clock? (A = often, D = never)

A...B...C...D...E...F...G
 Often Sometimes Never

3. How often do you check the clock? (A = often, D = never)

A...B...C...D...E...F...G
 Often Sometimes Never

4. How often do you check the clock? (A = often, D = never)

A...B...C...D...E...F...G
 Often Sometimes Never

20. To what degree are you satisfied with the TRAINING of the UNIT in your area of responsibility (Select one of the seven points)
- A....B....C....D....E....F....G....
Highly Satisfactory Highly Dissatisfied
Dissatisfied
21. What is your opinion of ability of UNIT in the UNIT?
- A. Excellent
B. Good
C. Fair
D. Poor
E. No opinion
22. What kind of influence do you think is exerted by the UNIT?
- A. Very much
B. Fairly
C. Few
D. Little
E. None
23. How do you feel about the UNIT?
- A. Very
B. Fairly
C. Satisfactory
D. Little
E. None
24. How do you feel about the UNIT?
- A. Very
B. Fairly
C. Satisfactory
D. Little
E. None

NOTE: Equal opportunity in the Air Force; a fair chance at promotion; an even break in my job/career selections.

25. What degree of significance do you attach to the above?(Select one of the seven points)

A....B....C....D....E....F....G....
Highly Significant Highly Insignificant
Insignificant

26. To what degree are you satisfied with the MILITARY aspects of your current life?

A....B....C....D....E....F....G
 High Importance Medium Importance Low Importance

27. Would you rather work for (i.e. be hired by) a military or civilian supervisor?

A. Definitely would rather work for a military supervisor
 B. Probably would rather work for a military supervisor
 C. Evenly
 D. Probably would rather work for a civilian supervisor
 E. Definitely would rather work for a civilian supervisor

28. Would you like to work for a military supervisor?

A. Definitely would like to work for a military supervisor
 B. Probably would like to work for a military supervisor
 C. Evenly
 D. Probably would like to work for a civilian supervisor
 E. Definitely would like to work for a civilian supervisor

29. Is individualism more important in the military or in civilian life?

A. More important in the military
 B. More important in civilian life
 C. Evenly
 D. More important in the military
 E. More important in civilian life

30. There are more favorable conditions for the individual in place to live and work than unfavorable ones.

A. True
 B. False
 C. Probably true
 D. Probably false
 E. True
 F. False

31. The military is a more favorable place to live and work than civilian life.

32. The military is a more favorable place to live and work than civilian life.

A....B....C....D....E....F....G
 Low Importance Medium Importance High Importance

32. To what degree are you satisfied with the personal growth aspects of your current life? (Select one of seven points)

[illegible]

32. How often did you attend church, your religious group or your religious group?

1. *Pharmaceutical industry*
 2. *Medical research*
 3. *Healthcare costs*
 4. *Insurance industry*
 5. *Government regulation*
 6. *Consumer advocacy*
 7. *Medical malpractice*
 8. *Healthcare reform*
 9. *Medical ethics*
 10. *Healthcare access*
 11. *Medical education*
 12. *Healthcare quality*
 13. *Medical technology*
 14. *Healthcare financing*
 15. *Medical research funding*
 16. *Healthcare policy*
 17. *Medical innovation*
 18. *Healthcare delivery*
 19. *Medical practice*
 20. *Healthcare management*
 21. *Medical research ethics*
 22. *Healthcare reform legislation*
 23. *Medical research funding agencies*
 24. *Healthcare policy makers*
 25. *Medical innovation funding*
 26. *Healthcare delivery models*
 27. *Medical practice guidelines*
 28. *Healthcare management systems*
 29. *Medical research ethics committees*
 30. *Healthcare reform implementation*
 31. *Medical research funding sources*
 32. *Healthcare policy analysis*
 33. *Medical innovation incentives*
 34. *Healthcare delivery reform*
 35. *Medical practice reform*
 36. *Healthcare management reform*
 37. *Medical research ethics reform*
 38. *Healthcare reform implementation challenges*
 39. *Medical research funding reform*
 40. *Healthcare policy reform*
 41. *Medical innovation reform*
 42. *Healthcare delivery reform challenges*
 43. *Medical practice reform challenges*
 44. *Healthcare management reform challenges*
 45. *Medical research ethics reform challenges*
 46. *Healthcare reform implementation success factors*
 47. *Medical research funding reform success factors*
 48. *Healthcare policy reform success factors*
 49. *Medical innovation reform success factors*
 50. *Healthcare delivery reform success factors*
 51. *Medical practice reform success factors*
 52. *Healthcare management reform success factors*
 53. *Medical research ethics reform success factors*
 54. *Healthcare reform implementation lessons learned*
 55. *Medical research funding reform lessons learned*
 56. *Healthcare policy reform lessons learned*
 57. *Medical innovation reform lessons learned*
 58. *Healthcare delivery reform lessons learned*
 59. *Medical practice reform lessons learned*
 60. *Healthcare management reform lessons learned*
 61. *Medical research ethics reform lessons learned*
 62. *Healthcare reform implementation future prospects*
 63. *Medical research funding reform future prospects*
 64. *Healthcare policy reform future prospects*
 65. *Medical innovation reform future prospects*
 66. *Healthcare delivery reform future prospects*
 67. *Medical practice reform future prospects*
 68. *Healthcare management reform future prospects*
 69. *Medical research ethics reform future prospects*
 70. *Healthcare reform implementation challenges and opportunities*
 71. *Medical research funding reform challenges and opportunities*
 72. *Healthcare policy reform challenges and opportunities*
 73. *Medical innovation reform challenges and opportunities*
 74. *Healthcare delivery reform challenges and opportunities*
 75. *Medical practice reform challenges and opportunities*
 76. *Healthcare management reform challenges and opportunities*
 77. *Medical research ethics reform challenges and opportunities*
 78. *Healthcare reform implementation success and failure factors*
 79. *Medical research funding reform success and failure factors*
 80. *Healthcare policy reform success and failure factors*
 81. *Medical innovation reform success and failure factors*
 82. *Healthcare delivery reform success and failure factors*
 83. *Medical practice reform success and failure factors*
 84. *Healthcare management reform success and failure factors*
 85. *Medical research ethics reform success and failure factors*
 86. *Healthcare reform implementation future research agenda*
 87. *Medical research funding reform future research agenda*
 88. *Healthcare policy reform future research agenda*
 89. *Medical innovation reform future research agenda*
 90. *Healthcare delivery reform future research agenda*
 91. *Medical practice reform future research agenda*
 92. *Healthcare management reform future research agenda*
 93. *Medical research ethics reform future research agenda*
 94. *Healthcare reform implementation best practices*
 95. *Medical research funding reform best practices*
 96. *Healthcare policy reform best practices*
 97. *Medical innovation reform best practices*
 98. *Healthcare delivery reform best practices*
 99. *Medical practice reform best practices*
 100. *Healthcare management reform best practices*
 101. *Medical research ethics reform best practices*
 102. *Healthcare reform implementation case studies*
 103. *Medical research funding reform case studies*
 104. *Healthcare policy reform case studies*
 105. *Medical innovation reform case studies*
 106. *Healthcare delivery reform case studies*
 107. *Medical practice reform case studies*
 108. *Healthcare management reform case studies*
 109. *Medical research ethics reform case studies*
 110. *Healthcare reform implementation impact assessment*
 111. *Medical research funding reform impact assessment*
 112. *Healthcare policy reform impact assessment*
 113. *Medical innovation reform impact assessment*
 114. *Healthcare delivery reform impact assessment*
 115. *Medical practice reform impact assessment*
 116. *Healthcare management reform impact assessment*
 117. *Medical research ethics reform impact assessment*
 118. *Healthcare reform implementation monitoring and evaluation*
 119. *Medical research funding reform monitoring and evaluation*
 120. *Healthcare policy reform monitoring and evaluation*
 121. *Medical innovation reform monitoring and evaluation*
 122. *Healthcare delivery reform monitoring and evaluation*
 123. *Medical practice reform monitoring and evaluation*
 124. *Healthcare management reform monitoring and evaluation*
 125. *Medical research ethics reform monitoring and evaluation*
 126. *Healthcare reform implementation stakeholder engagement*
 127. *Medical research funding reform stakeholder engagement*
 128. *Healthcare policy reform stakeholder engagement*
 129. *Medical innovation reform stakeholder engagement*
 130. *Healthcare delivery reform stakeholder engagement*
 131. *Medical practice reform stakeholder engagement*
 132. *Healthcare management reform stakeholder engagement*
 133. *Medical research ethics reform stakeholder engagement*
 134. *Healthcare reform implementation communication strategy*
 135. *Medical research funding reform communication strategy*
 136. *Healthcare policy reform communication strategy*
 137. *Medical innovation reform communication strategy*
 138. *Healthcare delivery reform communication strategy*
 139. *Medical practice reform communication strategy*
 140. *Healthcare management reform communication strategy*
 141. *Medical research ethics reform communication strategy*
 142. *Healthcare reform implementation public participation*
 143. *Medical research funding reform public participation*
 144. *Healthcare policy reform public participation*
 145. *Medical innovation reform public participation*
 146. *Healthcare delivery reform public participation*
 147. *Medical practice reform public participation*
 148. *Healthcare management reform public participation*
 149. *Medical research ethics reform public participation*
 150. *Healthcare reform implementation transparency and accountability*
 151. *Medical research funding reform transparency and accountability*
 152. *Healthcare policy reform transparency and accountability*
 153. *Medical innovation reform transparency and accountability*
 154. *Healthcare delivery reform transparency and accountability*
 155. *Medical practice reform transparency and accountability*
 156. *Healthcare management reform transparency and accountability*
 157. *Medical research ethics reform transparency and accountability*
 158. *Healthcare reform implementation risk management*
 159. *Medical research funding reform risk management*
 160. *Healthcare policy reform risk management*
 161. *Medical innovation reform risk management*
 162. *Healthcare delivery reform risk management*
 163. *Medical practice reform risk management*
 164. *Healthcare management reform risk management*
 165. *Medical research ethics reform risk management*
 166. *Healthcare reform implementation legal and regulatory framework*
 167. *Medical research funding reform legal and regulatory framework*
 168. *Healthcare policy reform legal and regulatory framework*
 169. *Medical innovation reform legal and regulatory framework*
 170. *Healthcare delivery reform legal and regulatory framework*
 171. *Medical practice reform legal and regulatory framework*
 172. *Healthcare management reform legal and regulatory framework*
 173. *Medical research ethics reform legal and regulatory framework*
 174. *Healthcare reform implementation governance structure*
 175. *Medical research funding reform governance structure*
 176. *Healthcare policy reform governance structure*
 177. *Medical innovation reform governance structure*
 178. *Healthcare delivery reform governance structure*
 179. *Medical practice reform governance structure*
 180. *Healthcare management reform governance structure*
 181. *Medical research ethics reform governance structure*
 182. *Healthcare reform implementation data and information management*
 183. *Medical research funding reform data and information management*
 184. *Healthcare policy reform data and information management*
 185. *Medical innovation reform data and information management*
 186. *Healthcare delivery reform data and information management*
 187. *Medical practice reform data and information management*
 188. *Healthcare management reform data and information management*
 189. *Medical research ethics reform data and information management*
 190. *Healthcare reform implementation human resources management*
 191. *Medical research funding reform human resources management*
 192. *Healthcare policy reform human resources management*
 193. *Medical innovation reform human resources management*
 194. *Healthcare delivery reform human resources management*
 195. *Medical practice reform human resources management*
 196. *Healthcare management reform human resources management*
 197. *Medical research ethics reform human resources management*
 198. *Healthcare reform implementation infrastructure management*
 199. *Medical research funding reform infrastructure management*
 200. *Healthcare policy reform infrastructure management*
 201. *Medical innovation reform infrastructure management*
 202. *Healthcare delivery reform infrastructure management*
 203. *Medical practice reform infrastructure management*

24. Is the following statement true or false? When the price of a good falls, the quantity demanded increases. True

- [illegible]

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PLEASE READ BEFORE CONTINUING

In the following section of this questionnaire, you will be asked to answer questions on the subject of the Air Force officer corps. The overall functioning and morale of the Air Force officer corps. We are studying this concept, functioning and morale and its thought of in the following manner.

(1) The degree to which the goals and aspirations of the Air Force officer corps are being met. These goals are as follows: (a) The Air Force officer corps is being met in the Air Force officer corps.

(2) The degree to which the Air Force officer corps is being met in the Air Force officer corps. Do you feel the Air Force officer corps is being met in the Air Force officer corps? Do you feel the Air Force officer corps is being met in the Air Force officer corps?

(3) The degree to which the Air Force officer corps is being met in the Air Force officer corps. Do you feel the Air Force officer corps is being met in the Air Force officer corps? Do you feel the Air Force officer corps is being met in the Air Force officer corps?

(4) The degree to which the Air Force officer corps is being met in the Air Force officer corps. Do you feel the Air Force officer corps is being met in the Air Force officer corps? Do you feel the Air Force officer corps is being met in the Air Force officer corps?

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Section III

[illegible]

1. If you sketch the KC block, you've done the next one blind. If you don't, look at block, then go to the next one. It's dealing with these questions.
2. Look at all the effects for a given question. Notice they are all the same. The only difference is the sign. The sign is determined by the sign of the effect. The sign of the effect is determined by the sign of the effect. The sign of the effect is determined by the sign of the effect.
3. The only difference is the sign. The sign of the effect is determined by the sign of the effect. The sign of the effect is determined by the sign of the effect. The sign of the effect is determined by the sign of the effect.
4. Look at only one column. The sign of the effect is determined by the sign of the effect. The sign of the effect is determined by the sign of the effect. The sign of the effect is determined by the sign of the effect.
5. An entire block space has been provided at the end of the test. You may use this as a place to write down any notes which you wish. You may use this as a place to write down any notes which you wish. You may use this as a place to write down any notes which you wish.

[illegible]

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35. Does the new ORE affect cancer diagnosis?

YES
NO

Examination of the ORE
A clear, early diagnosis of
on the ORE is now possible

Also, the ORE can be used
to detect cancer in the

MAILED

MAILED

For information of the
the ORE is now possible
on the ORE is now possible
on the ORE is now possible

For information of the
the ORE is now possible
on the ORE is now possible
on the ORE is now possible

36. Does the new GDS have an effect on job and mission performance?

VMS

100-44361-24

10. The following table shows the number of people who have been convicted of a crime in the United States since 1970. The number of people convicted is given in thousands. The number of people convicted is given in thousands. The number of people convicted is given in thousands.

Job performed by: WFO
 Date: 10/1/78

to a more complete understanding of the

1870-1871

11. 100%

[illegible]

100

10

Abstract

6523-16

1. 2. 3. 4.

1. *Chlorophyll a* and *Chlorophyll b* were determined by the method of Arar and Collins (1971).

0.17-0.20

1. $f(x) = x^2 + 2x + 1$

[illegible]

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 84

1. The first step is to identify the problem.
 2. The second step is to define the problem.
 3. The third step is to analyze the problem.
 4. The fourth step is to develop a solution.
 5. The fifth step is to implement the solution.
 6. The sixth step is to evaluate the solution.
 7. The seventh step is to monitor the solution.
 8. The eighth step is to maintain the solution.
 9. The ninth step is to improve the solution.
 10. The tenth step is to document the solution.

$\mathcal{P}^{\text{sub}} = \{P \in \mathcal{P} \mid P \subseteq P^{\text{sub}}\}$
 $\mathcal{P}^{\text{sub}} = \{P \in \mathcal{P} \mid P \subseteq P^{\text{sub}}\}$
 $\mathcal{P}^{\text{sub}} = \{P \in \mathcal{P} \mid P \subseteq P^{\text{sub}}\}$

6. L'Union européenne
 doit être en mesure
 de sélectionner les

Systemic effects of the above-mentioned
theories on the **creativity**

Continuity

Officers are motivated because they are paid neither for military nor for civilian work.

System studies creativity
and initiative

37. Is the fairness of officer evaluations affected by the new OPR?

124
130

Page 111 - Effects of New OLP

have a number of
examples on specific
criteria. E

Heard that some of the
officer personnel within
an organization say nothing

| | | | |
|---------------|----------|------------------------------|----------|
| criteria | strong | an organization can now work | strong |
| | moderate | | moderate |
| in the future | weak | in the future | weak |
| | moderate | | moderate |
| | strong | | strong |

Not a winner for me,
have to pay a fee to
evaluate, don't have rates

Conducting these experiments
over the past few years,
certain kinds of work in
physics, chemistry, biology,
and other sciences have
received special emphasis.

[illegible]

is classified as to
level of sensitivity
(i.e., level of confi-
dentiality or policy,
etc., considered)

Force distribution results in a heavy rolling being induced by a low rail.

Those in certain positions may be a malice (i.e. SHC/C, low visibility position)

38. Does the new OER have an effect upon Air Force personnel actions (promotions and assignments)?

☐ YES

☐ NO

Possible Effects of New OER

Promotions based on OER developed to distinguish among officers

System encourages officer initiatives to seek challenging and rewarding assignments

| | | | |
|---------|----------|---------|----------|
| NEUTRAL | strong | NEUTRAL | strong |
| | moderate | | moderate |
| | weak | | weak |
| | very | | weak |
| | moderate | | moderate |
| | strong | | strong |

Possible distribution may not be valid for the Air Force personnel actions.

System discourages officers from applying to some assignments (e.g. back, forward, etc.)

| |
|----------|
| strong |
| moderate |
| weak |
| very |
| moderate |
| strong |

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SECTION II

38. Answer each of the following questions in relation to your Air Force life. Refer to Sections I and III for definitions.

39. Which one of the following best describes your opinion of the impact of the new GCM upon the WORK aspects of your life? (select one of seven points)

| | | | | | | |
|-------------|-------|-------|-----------|-------|-------|-----------|
| A.... | B.... | C.... | D.... | E.... | F.... | G |
| Very | | | Neutral/ | | | Very |
| Unfavorable | | | No effect | | | Favorable |

40. Which one of the following best describes your opinion of the impact of the new GCM upon the LEISURE, RECREATION, and HOBBIES aspects of your life? (select one of seven points)

| | | | | | | |
|-------------|-------|-------|-----------|-------|-------|-----------|
| A.... | B.... | C.... | D.... | E.... | F.... | G |
| Very | | | Neutral/ | | | Very |
| Unfavorable | | | No effect | | | Favorable |

41. Which one of the following best describes your opinion of the impact of the new GCM upon the QUALITY aspects of your life? (select one of the seven points)

| | | | | | | |
|-------------|-------|-------|-----------|-------|-------|-----------|
| A.... | B.... | C.... | D.... | E.... | F.... | G |
| Very | | | Neutral/ | | | Very |
| Unfavorable | | | No effect | | | Favorable |

42. Which one of the following best describes your opinion of the impact of the new GCM upon the PERSONAL GROWTH aspects of your life? (select one of seven points)

| | | | | | | |
|-------------|-------|-------|-----------|-------|-------|-----------|
| A.... | B.... | C.... | D.... | E.... | F.... | G |
| Very | | | Neutral/ | | | Very |
| Unfavorable | | | No effect | | | Favorable |

43. Which one of the following best describes your opinion of the impact of the new GCM upon the EDUCATIONAL and SKILLS of the enlisted corps? (select one of seven points)

| | | | | | | |
|-------------|-------|-------|-----------|-------|-------|-----------|
| A.... | B.... | C.... | D.... | E.... | F.... | G |
| Very | | | Neutral/ | | | Very |
| Unfavorable | | | No effect | | | Favorable |

44. Have you been asked to transfer the new GCM system?

A. YES
B. NO

45. If you have been evaluated under the new CER, circle the code for the marks you received.

| | | | | | | | | | | | | | | |
|-------|---|---|---|------------|-------|---|---|---|------------|----------|---|---|---|------------|
| RATER | 1 | 2 | 3 | 4 or lower | APP. | 1 | 2 | 3 | 4 or lower | REVIEWER | 1 | 2 | 3 | 4 or lower |
| | | | | | RATER | | | | | | | | | |

Appendix C

Survey Results

(Variables 1-10, 52-55 Demographics)

(Variables 35-46, 51 OER Effects)

(Variables 11-34, 47-50 AFMIG Quality of Life)

GSM/SM/76D-27

Appendix 3 (pp. 118-143) has been omitted due to its poor reproductive quality. Chapter VI presents the statistical findings of the research and includes twelve tables which contain data from this appendix. Persons interested in obtaining this detailed data may do so by writing to AFIT/ENS, Wright-Patterson AFB OH 454

Vita

Ralph A. Blakelock was born on 16 May 1949 in Dayton, Ohio. He graduated from high school in Arcadia, California in 1967 and entered the U.S. Air Force Academy from which he received a Bachelor of Science degree in History in 1971. Upon graduation he was commissioned and subsequently attended the Armed Forces Air Intelligence Course at Lawry AFB, Colorado. After completing this instruction he was assigned to the 388th Tactical Fighter Wing, Korat, Thailand as a current intelligence analyst and briefer. In 1973, he was reassigned to the Foreign Technology Division where he was a current technical intelligence analyst until entering the School of Engineering, Air Force Institute of Technology, in September 1975.

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